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A Comparative Analysis of Military and Non-Military Parent Engagement in Public Elementary Schools

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A COMPARATIVE ANALYSIS OF MILITARY AND NON-MILITARY PARENT ENGAGEMENT IN PUBLIC ELEMENTARY SCHOOLS

A dissertation submitted in partial fulfillment of the
requirements for the degree of
Doctor of Education

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I HEREBY RECOMMEND THAT THE DISSERTATION PREPARED UNDER MY SUPERVISION BY Robin G. Fisher ENTITLED A Comparative Analysis of Military and Non-Military Parent Engagement in Public Elementary Schools BE ACCEPTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF Doctor of Education.

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ABSTRACT

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The focus of this study was a comparison of military and non-military parent engagement levels in public elementary schools. A parent survey was used to collect data on the parent engagement levels of military and non-military parents to determine if there was a significant difference between the two populations, while controlling for income and education. In addition, the parent engagement levels of the military parents were analyzed based on the percentage of military students in each school. The objective was to determine if a higher percentage of military students in a school would increase the military parent engagement. Open-ended questions were added to the survey to collect parent responses about how their school can increase parent participation and support military families. There was a statistically significant difference between the parent engagement levels of military and non-military parents for Sharing Information, Connection to Resources, Educational Quality and School Climate, but it was dependent on the income of the parents. No statistically significant difference was seen for the Leadership and Participation or Communication constructs. There was also no statistically significant difference in the level of military parent engagement based on the percentage of military students in the school. The qualitative analyses of the open-ended questions revealed a difference in how the military and non-military families believe that schools should increase parent participation and support military families.

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CHAPTER 1: INTRODUCTION

Since the early 21st century, there has been a growing interest in studying the experiences of military connected (MC) students in K12 schools. This has, in part, been due to the strain that the Afghanistan and Iraq wars placed on our nation's military families (Esqueda, Astor & DePedro, 2012). Beginning in 2010, the U.S. Department of Education (DoE) increased research funding to study MC students in public schools (De Pedro, Esqueda, Cederbaum & Astor, 2014) due to rising evidence that these children experience challenges due to the military service of their parents. In 2011, President Obama ordered federal agencies to direct funding toward improving the educational experience of MC students by reducing the negative impacts of frequent moves and parental absences (White House, 2011). The additional research funding led to amplified attention and initiatives intended to support military families in the United States (De Pedro et al., 2014). The purpose of this study was to examine public elementary school parent engagement of MC and non-MC families in order to add to the current literature on parent engagement, specifically the experiences of MC parents in public schools, in order to improve the experiences of MC students.

MC students encounter unique stressors due to frequent moves and parental deployments (Esqueda et al., 2012). Some examples of military-specific stressors include war trauma, disability, illness, death, and frequent relocation. Families dealing with deployments may have increased behavioral and mental health problems as well as parental deployments have been linked with childhood depression and stress (Gorman,

Eide, Hisle-Gorman, 2010; Jensen, Martin & Watanabe, 1996). In addition, researchers have reported that MC students may have increased academic and behavioral problems at school due to military-specific stressors (Angrist & Johnson, 2000; De Pedro et al., 2011; Engel, Gallagher & Lyle, 2010).

Of the over one million school-age children with an active duty parent, almost eighty percent attend a local public school (De Pedro, et al., 2011). In fact, almost all of the districts in America have a child who is connected to the military in some way (Military Child Education Coalition, 2014). In light of these facts, MC students are a distinct sub-population with specific characteristics and challenges that must be recognized by public schools. In fact, public schools have the ability and the responsibility to serve as a critical support for children who are experiencing family stress, violence, war, relocation and parental deployment (Astor, Benbenishty, & Estrada, 2010).

This study was designed using a family systems theory lens (FST) which supports a connection between the experiences of the family as a whole and the experiences of the individual members. This family connection is the basis for the research proposal that higher levels of parent engagement may improve the outlook for our MC students in public elementary schools. In FST, the family is viewed and treated as one entity. In light of this view, educators may be able to attend to the needs of the students by intervening at the parental level, specifically by increasing parent engagement with the schools.

Researchers have highlighted that increased parent engagement can be a deterrent to the social, emotional and academic challenges such as those experienced by MC students (Hill & Tyson, 2009; Jeynes, 2017). Researchers suggested that parent

engagement is associated with positive social/emotional status and higher academic success (Hill & Tyson, 2009; Jeynes, 2011). Jeynes (2017) explained that parent engagement is more than just attending school events and reading school newsletters. Instead, parent engagement refers to a strong relationship between the home and the school. In this strong relationship the student's successful experience is the result of a team approach in which parents have an equal voice to the school personnel in how their child is educated (Jeynes, 2017).

Jensen and Minke (2017) described parent engagement as a compilation of the actions and activities in which parents participate in order to support their childrens' education. Parent engagement is also a state of mind during which parents feel engaged and connected when they are provided with information from the school (Jensen & Minke, 2017). In this study, a parent engagement survey was selected as the data collection tool to measure the parents' perspective on how their child's school shares information, communicates, provides a quality education, allows parent to lead and participate in their child's education, connects their family to resources, and provides a supportive environment. The connection between the survey sub-categories, parent engagement, and the potential for improvement in academic, personal and social success for students is included in Figure 1.

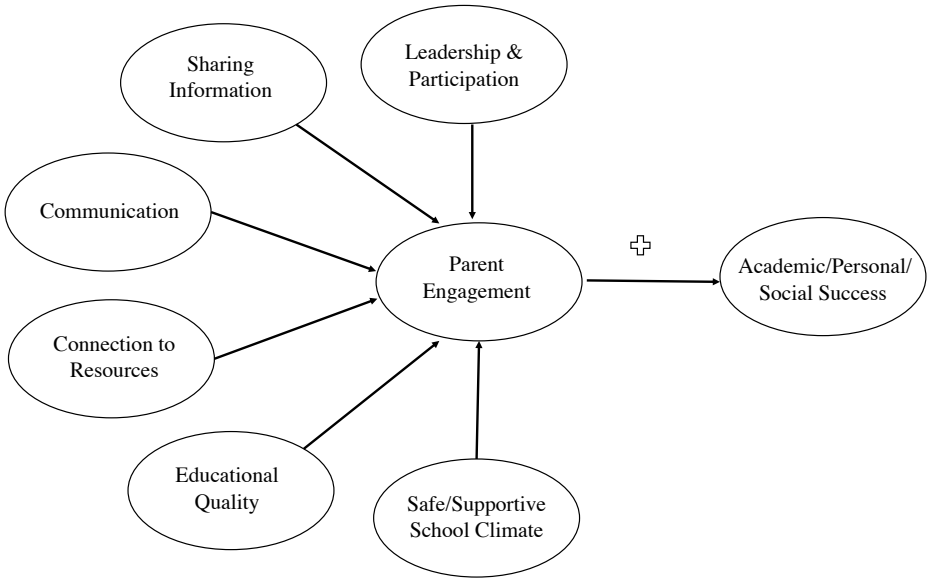

Figure 1. Parent School Engagement Model. This figure shows the six constructs that make up total parent engagement and the impact of parent engagement on the academic, and personal/social success of students.

Theoretical Framework

The theoretical framework that guided this research project is family systems theory (FST). FST is a behavioral theory that views the family as a single unit and relies on systems thinking to interpret the interactions between the members (Bowen, 1978). Based on Bronfenbrenner's systems theory (Bronfenbrenner, 1978), the family system is also impacted by external factors (school, community, etc.). The interaction between the family unit and external influences is presented in Figure 2. For this research project, the family, the child/young person, and the school/educational setting provide the focus of the study. The arrows represent the potential for impact or influence of one group on another. The diagram supports the claim that there are reciprocal interactions between the

school and the family which in turn may impact the child. The family, school, and child system is interrelated and operates under the FST framework.

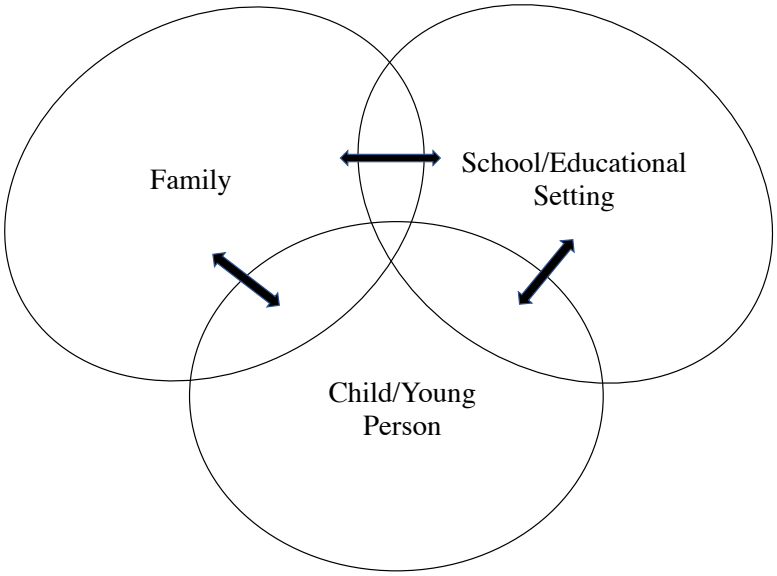

Figure 2. The Family, School, Child System. This figure shows the connection between the family, the school, and the student. The model was adapted from the Family Systems Theory model proposed by Bowen (1978).

Although FST is well suited for studies involving the family, the theory is also particularly relevant when working with military families. Nelson, Baker and Wesson (2016) explained that FST is very applicable when working with MC students. The authors compared the interaction of family members with the broader vision of the military as a family. Although military families will act and react based on individual circumstances and challenges within their own family unit, the military community is also viewed as a large family. Changes or challenges within the military family system will have an impact on each family near the military base or facility. Nelson et al. (2016)

explained that school teachers, counselors and administrators should be encouraged to be familiar with the military family dynamics. By understanding the nuances of military families, school staff will understand that even events occurring outside of the nuclear family can result in a direct and substantial impact on the student due to the military connection. An example of this type of situation is a regional deployment of a unit or the death or injury of someone who is connected to the parents' unit (Nelson et al., 2016).

The American School Counselor Association (2005) also promoted a family system approach when working with military students in a school setting. Paylo (2011) stated that a systems perspective, such as FST, is a preferable approach to adequately address the complex problems that MC students face. According to Goldenberg and Goldenberg (2008), when counselors understand the interdependence between the family, the school, and the military community, they will adopt a FST approach as they work with MC students.

FST approaches are also preferable over individual interventions due to the unique nature of the military family (Alfano, Lau, Balderas, Bunnell, & Beidel, 2016). First of all, structured, system-based and goal-oriented interventions might be more acceptable to military children who may be accustomed to structure, routine and protocol. Secondly, an FST approach assists in assessing the impact of positive and negative behaviors within the family unit by looking at the reactions and interactions of all members during times of stress (Masten, 2013). Masten (2013) explained that when working with MC students and their unique challenges, one must consider the family dynamics in order to appropriately and effectively address the needs of the children.

One of the main principles of FST is that when anxiety or distress is experienced by any member in the system, the remaining members also experience anxiety or distress (Larson & Wilson, 1998). In fact, in very close families, the emotional transfer from one member to the next is almost automatic. An FST perspective supports the objectives and design of this research project because of the likelihood that the military parents' experiences with and perspectives of their children's schools will likely impact the perspective, emotional state and academic success of MC students. According to Sheldon (2002), parent engagement, as depicted in the FST model, represents the dynamic interaction between the family and the school. The exchange of data between these systems is integral to the theory that a student's academic and behavioral successes at school are fostered by a positive exchange between the family and the school.

A conceptual model of the connection between FST and military parents' engagement with their children's schools is shown in Figure 3. The model demonstrates that the family life cycle includes the family structure, interactions, and functions. The family structure refers to the members of the family unit, the family interactions are defined by how family members relate to one another and to others outside the family, and finally, the family functions are the roles and responsibilities owned by each member of the family. The outside inputs are those that are projected to cause change or stress, such as military connectedness, for this study. For the purpose of this research project, parent engagement is considered a form of family interaction that is projected to increase student success and mitigate the potential negative impact of the military lifestyle.

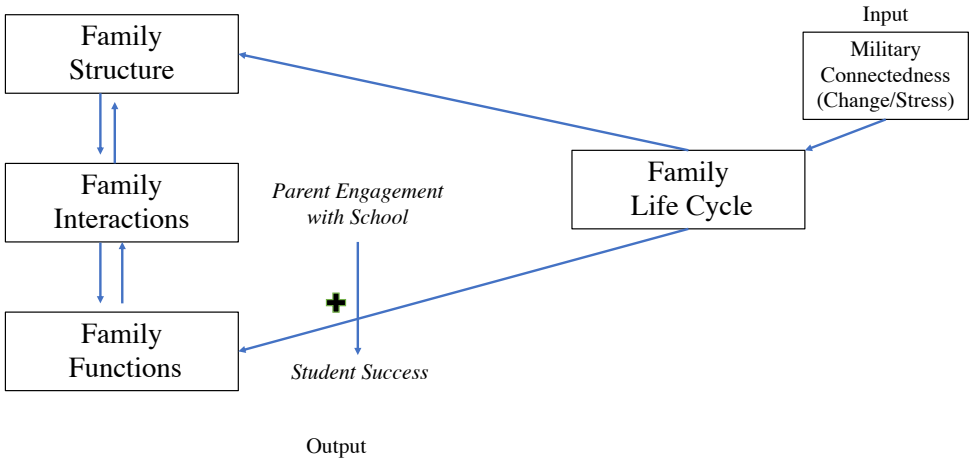

Figure 3. Conceptual Model for Family Systems Theory. This figure shows the connection between family systems theory and military parents' engagement with their children's schools. The figure was adapted from Allen's model developed to depict the various interactions in Family System Theory (Allen, 2011, p. 3).

Statement of the Problem

According to data from the Military Community and Family Policy (2013), there are approximately two million American military children living in various locations around the world. Though some school-aged MC children are served through Department of Defense schools, more than eighty percent attend public and private schools (Cozza & Lerner, 2013). In fact, it is estimated that over one million MC students attend public schools in the U.S. (Astor & Benbenishty, 2014).

Researchers have confirmed that MC students face challenges related to multiple moves that require them to change schools and deployment, and/or or temporary duty

assignments that result in the absence of a parent for a prolonged period of time (Bradshaw & Sechrest 2010; Devoe & Ross, 2012; Hardaway, 2004; Masten, 2013; Park, 2011; Shealy, 2003; Williams, 2013). Although many children may thrive in the face of difficulty, these types of situations can lead to increases in students' stress levels, mental health challenges, and academic deficiencies (Alfano et al., 2016). During military deployments the children may have limited communication with the deployed parent thus leading to increased separation anxiety. Concerns about parent safety add to a child's stress, particularly if the service member is in a combat situation (Johnson & Ling, 2013).

Military children do not wear the parents' uniforms, which makes MC students hard to identify as an at-risk population; but, they are directly affected by the challenges of military life. For MC students in schools, Kudler and Porter (2013) recommended that schools use a multi-faceted approach that includes a collaboration between the government, community, home, and the school. The relationship between home and school, measured through a parent engagement survey, is the focus of this study. Though many studies (Alfano et al., 2016; Kudler & Porter, 2013; Shealy, 2003) have detailed MC students' school challenges due to frequent moves and parent deployments, little data are available that specifically address the perspective and experiences of military parents in K12 schools, particularly related to their level of engagement and satisfaction with their children's schools. This research project was designed to fill that gap in the literature by comparing military and non-military parent engagement in public elementary schools.

Parent engagement refers to the active participation of parents in the education of their children. Parent engagement was selected as the dependent variable in this study

because this type of parent participation has been positively linked to student academic success (Hill, et al., 2004; Hill & Tyson, 2009; Schueler, McIntyre, & Gehlback, 2017), healthy behaviors (Aidala & Straim, 2017), motivation to learn in an academic setting (Cecilia Sin-Sze & Pomerantz, 2012), an increased sense of belonging (Kuperminc, Darnell & Alvarez-Jimenez, 2008) and learning to read at a younger age (Dearing, Kreider, Simpkins & Weiss, 2006). Parent engagement has also been positively correlated with school satisfaction (DeNisco, 2018).

According to researchers (Fantuzzo, Taghe & Childs, 2000), parent engagement in K12 schools is impacted by the parents' income and level of education. Fantuzzo et al.'s (2000) study utilized the Family Involvement Questionnaire to evaluate family participation in their children's education. Through multivariate analyses the authors discovered that parents with an education beyond high school had higher levels of school participation over those with less than a high school education. Through an ethnographic study, Lawson (2003) reported that parents with lower means may be less engaged in K12 education. Based on these findings, this study incorporated the parents' level of income and education as control variables in the analyses of parent engagement.

This study utilized quantitative and qualitative methods to study military parent engagement in public elementary schools. A parent engagement survey was used to collect the data required to complete the analyses. Two of the research questions were answered through quantitative analyses and the third question was answered through a phenomenological study. The research questions are presented in the next section.

Research Questions

Question 1 (RQ1) - Does the parent engagement level of MC parents in public elementary schools differ significantly from non-MC parents' levels of engagement in public elementary schools while controlling for income and education?

Question 2 (RQ2) - Does a lower proportion of MC parents in a public elementary school relate to a significantly lower level of MC parent engagement when compared to a public elementary school with a higher proportion of military families while controlling for income and education?

Question 3 (RQ3) - What are key similarities and differences in how elementary MC and non-MC families believe that schools should increase parent participation and support military families?

Definition of Key Terms

Family System Theory (FST). A theoretical standpoint used when working with families that moves away from a focus on the individual to a focus on the interconnectedness between people in a family system and their relationships (Becvar & Becvar, 2000). According to Bronfrenbrenner (1978), families are self-regulating systems that behave in a predictable, repetitive manner. In FST, families are viewed as an enclosed, complete system that is impacted by internal and external influences. Schools are part of the external influences that may impact the thoughts, feelings and interactions of the family unit (Turnbull & Turnbull, 2001).

Military connected (MC) student. A student in a K12 school who has a parent or guardian serving in the Armed Forces ("Who are Military Connected Students", n.d.).

Military deployment. Military activities that require the movement of personnel and materials to a specified destination. Deployment is characterized by four phases: pre-deployment, deployment, post-deployment and reintegration ("Deployment an Overview", 2018).

Military family. The spouse and children of the men and women who qualify as active duty, National Guard, and Reserve U.S. military forces (Clever & Segal, 2013).

Non-Military Family. A family that does not currently have an immediate family member serving as active duty, National Guard, or Reserve U.S. military forces.

Parental Engagement. Parental engagement is characterized by a reciprocal relationship between home and school where parents share in school decision-making and actively participate in the education of their children (Jeynes, 2017). For this study parent engagement was measured through a survey that assessed the following sub-categories: (a) communication; (b) educational quality; (c) leadership and participation; (d) connection to resources; (e) parent satisfaction; and (f) school climate (how you see your school).

Interstate Compact on Educational Opportunity for Military Children. The Interstate Compact or MIC3 was developed in 2016. MIC3 addresses key issues that are encountered by military families as they transfer between schools. The key issues include enrollment, class placement, eligibility for sports and special programs, and graduation. MIC3 helps MC families navigate through school transitions when there are widely varying polices between states (Military Interstate Children's Compact, n.d.).

Scope of Study

The scope of this study was limited to parents of public elementary school students from three school districts in a Midwestern state. The districts are located near a large military installation. The focus on the elementary grade levels was selected to ensure that a sufficient sample size could be obtained. Clever and Segal (2013) reported that a large proportion of active duty military stay in the military for under 10 years. In light of this, the parents are likely to have younger children while in the military. Nelson, Baker and Weston (2016) noted that MC children are younger, with ages birth through 11 years covering 69% of the population. By focusing on military families with children in grades K through 5, the proportion of MC students in an elementary school will likely be higher than if the study included students in middle (grades 6 through 8) or high school (grades 9 through 12). To be clear, focusing on the elementary aged child in this project improves the generalizability to other contexts.

Significance of Study

This research project was selected to provide data that will help K12 schools improve the educational experiences of MC students and their families. Parent engagement was selected as an important metric for this study because parent engagement has been shown to be associated with academic and personal success of K12 students (Jeynes, 2017). As mentioned previously, increased levels of parent engagement with a child's school have been correlated with increased academic achievement and positive personal/social outcomes, such as a motivation to learn, making healthy choices,

and resilience in the face of challenges. (Hill & Tyson, 2009; Jeynes, 2011; Schueler, McIntyre, & Gehlback, 2017)

One important goal of the study was to determine whether or not there was a statistically significant difference in parent engagement between military and non-military connected parents. An additional goal was to see if the percentage of military parents in a school impacts the parent engagement level of military families. For example, the study may help discover if schools with larger percentages of military families show a statistically significant higher level of MC parent engagement over those with a lower percentage of MC families. If that is the case, a higher percentage of military families in a school could be determined to be a mitigating factor that increases MC parent engagement.

Figure 4 presents the operational model for the quantitative portion of this research study (RQ1 and RQ2). The dependent variable is parent engagement and one of the independent variables is military connectedness, characterized by frequent relocations and parental deployment. The second independent variable is the percentage of MC students in the schools, which facilitated analyses to determine if an increase in the number of MC students in a school was a mitigating factor that may increase parent engagement.

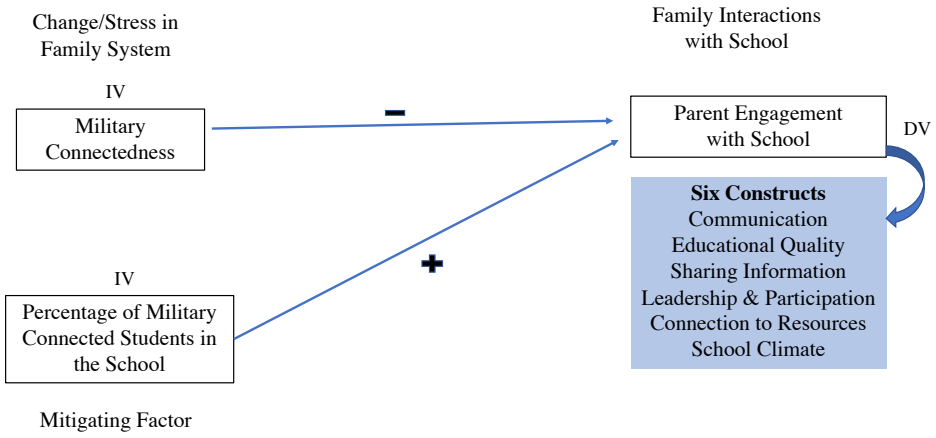

Figure 4. Parent Engagement Operational Model. This is a conceptual model depicting the impact on parent engagement of military connectedness and percentage of MC parents in a school.

Organization of Study

This dissertation includes five chapters that together provide a comprehensive analysis of the selected topic. An overall summary of the dissertation topic, statement of the problem, research questions, definition of relevant terms, and significance of the study have been described in Chapter 1. In Chapter 2 a literature review is presented that provides a summary of the scholarly data that pertain to and support the goals of the research project. An outline of the research methodology to include the selected methods, a description of the sample population and data analysis strategies are included in Chapter 3. In Chapter 4 the findings of the study are presented. The dissertation concludes with Chapter 5, in which the findings are explained, the limitations of the study

are discussed, and a summary of the final conclusions and future implications are presented.

CHAPTER 2: LITERATURE REVIEW

Searches for relevant scholarly resources related to the topic of this dissertation were undertaken through the use of online databases, including EBSCO, ERIC, Academic Search Primer, PsychInfo and Education Research Complete. Print editions of peer reviewed books were also used in addition to web based searches of government websites. The literature review begins by presenting a rationale for studying MC students in K12 schools. An examination of the experiences and challenges that MC students encounter in K12 public schools follows. The next session addresses research based strategies for helping MC students in the school setting; initiatives that mirror the parameters that define parent engagement are included. The review then covers the literature on parent engagement in K12 schools. To begin, parent engagement is defined and the importance of parent engagement is presented. Strategies for increasing the active participation of parents in K12 schools are then examined, followed by factors that will influence parent engagement.

Military Connected Children in K12 Schools

Cozza and Lerner (2013) reported that MC students exist in almost all districts across the country (Cozza & Lerner, 2013), but they are not routinely recognized as a distinct population in school reform studies or in state and local policy initiatives (Astor, De Pedro, Gilreath, Esqueda, & Benbenishty, 2013). MC students' educational

experiences are diverse Some students attend school on a military base while others live miles away from a military base and are fully integrated into the culture of civilian communities and schools (Kudler & Porter, 2013). Regardless of the MC child's background or living situation, Kudler and Porter highlighted the need for MC students to be identified and served based on their specific needs as a unique sub-population in K12 schools.

Importance of Problem

MC students face unique challenges that place them at risk for mental health and academic challenges in schools (Alfano et al., 2016). Researchers indicated that the challenges are caused by frequent moves and parental deployment (Bradshaw & Sechrest, 2010; Devoe & Ross, 2012; Shealy, 2003; Williams, 2013) in addition to fact that schools are not aware of the impact these experiences have on MC students. Investigators have found that MC students are at risk for increased stress, impaired health, poor academic performance, behavior problems, and emotional disorders (Flake, David, Johnson & Middleton, 2009; Hardaway, 2004; Wadsworth, 2013). These risks can be attributed to uncertainty in their current family situation due to moves or parental deployment, role reversals due to a child taking on parental responsibilities when a parent is absent, and the change and instability that may be a routine experience in military families (Park, 2011; Williams, 2013). To compound the problem, most school personnel are not aware of the needs of MC students because training about the subpopulation is not provided in the majority of education programs across the country (Astor et al., 2012). Professional development opportunities must be sought out on their own. Instead, teachers,

counselors, and administrators must seek out the information on their own or through professional development opportunities offered by their school districts.

Frequent Moves.

Military families relocate an average of every two to three years, with the majority of MC students moving six to nine times during their K-12 school years (Smith, Chun, Michael & Schneider, 2013). Moves may occur over long distances, to other states, or even to a new country (Cooney, De Angelis, & Segal, 2011). Shealy (2003) used a heuristic and phenomenological research methodology to explore the experiences of military children. Dialogic interviews with five military men and five military women were recorded and transcribed. From these interviews, common themes about the military experience of families were identified. One major theme discovered in the study was that MC students who relocate may experience a sense of not belonging in a school and may struggle maintaining friendships at school . In fact, following a qualitative study employing 11 focus groups comprised of military youth, parents and school personnel, Mmari, Bradshaw, Sudhinaraset and Blum (2010) reported that MC students experience challenges assimilating into new social groups when they move to a new school.

Through a review of recent literature on military children and families, Park (2011) further articulated the challenges for the MC student who relocates. Frequent relocations caused a disruption in MC students' activities, academics and social support because they are frequently trying to adjust to new schools and new cultures. Park reported that whether academically ahead or behind, MC students may experience difficulty adjusting and teachers may struggle to accommodate their academic needs. Athletic and extra-curricular opportunities may also be lost with late or midyear transfers due to the fact that

teams are already formed, and the coaches may not be open to welcoming new members part-way through the season.

Parental Deployment.

Parental deployment is another risk factor for MC students. Cross-sectional data from the 2008 Washington State Healthy Youth Survey (2008) collected in 8th, 10th, and 12th grades of public schools (n = 9,987) indicated that MC students may experience increased suicide ideation, increased stress, and manifestation of mental health problems during parental deployment (Reed, Benn & Edwards, 2014). The stages of deployment are divided into five parts: pre-deployment; deployment; sustainment; pre-reunion and post-deployment. Each deployment typically lasts from six months to two years (Wood, Greenlead, & Thompson-Gillespie, 2012).

In an extensive literature review of empirical papers and official reports from 2001 to 2015 about the mental health and function of MC children in relation to deployment for combat missions, Alfano et al. (2016) examined the mental health of children during the various stages of a parent's deployment. A total of 47 articles that focused on the selected topic were identified; data within the articles included interviews and focus groups with school personnel. The authors concluded that parental military deployment leads to an increase in academic challenges, more requests for mental health supports and atypical child stress levels. Academic challenges were based on decreased test scores in all subject areas during a parent's deployment. Increased mental health reports were linked to separation from the parent but also fear of the parent being injured or killed. Family interviews indicated that stress levels were higher for families that were in the various phases of deployment.

Research Based Interventions for Military Connected Children

Kudler and Porter (2013) reported that MC students in the K12 environment must first be identified by the schools in order for interventions to be provided. The identification process must be ongoing so that students receive the needed services as soon as they arrive in the new school. Garner, Arnold & Nunnery (2014) conducted a qualitative study using interviews, focus groups and surveys with principals, school counselors and teachers from eight public schools. The authors recommended that student demographics be monitored throughout the school year in order to identify new MC students as soon as they enter the district.

Kudler and Porter (2013) highlighted the importance of the MC student identification process by reporting that unless the MC students and their families are included as possible unique populations within a K12 public school, school personnel will not develop a sensitivity and knowledge of the MC students and their families. Kudler and Porter (2013) also stated that most public schools do not survey families to determine if there are military connections. In addition, schools that do not serve a large percentage of military families may even overlook the MC student population entirely, leaving the MC students at risk and lacking the necessary interventions.

Some examples of best practices that K12 public schools can employ to support MC students include building a positive school culture, communicating regularly with MC students and parents, and connecting families to available resources (Chandra, Martin, Hawkins, & Richardson, 2010; Garner et al., 2014; Nelson et al., 2016). Following a qualitative study that involved focus groups and semi-structured interviews

of teachers, administrators and counselors, Chandra et al. (2010) reported the importance of early identification and support. The authors recommended supports included creating an accepting climate for MC students in the school and connecting the families to military and community based mental health supports. Following a similar qualitative study that included focus groups, surveys and semi-structured interviews, Garner et al. (2014) developed a list of "domains of school impact " to offset the "domains of risk" experienced by MC students. The "domains of school impact" included cultural responsiveness, connection to support services (academic and community-based) and clear communication about the MC students' needs and backgrounds within the school and with the local community. Based on these findings**,** best practices for addressing the educational needs of MC students can be divided into three main categories: creating a positive school culture, communication and connection to resources. Each category is discussed in detail in the sections that follow.

Creating a positive school culture.

Numerous authors have discussed the importance of a positive school culture as an effective tool to support MC students through parental deployments and transitions into a new school (Cole, 2014; De Pedro et al., 2011; Riggs & Riggs, 2011). Following a survey of over 6,000 MC students, Strobino and Salvaterra (2000) conducted a qualitative analysis of the responses. Based on the analysis, the authors concluded that a positive school culture for MC students is one that provides support to military families and has high parent engagement. Caring relationships between MC students and staff and a sense of belonging were highlighted as two important criteria for creating a school climate that supports MC students undergoing stressful situations and/or transitions (Zullig,

Koopman, Patton & Ubbes, 2010; Astor et al., 2012). A culture of support is created when school personnel acknowledge the strengths of MC students (Ruff & Keim, 2014). Tangible acts of acknowledgment were reported by Ruff and Keim (2014) to occur when a teacher, counselor or administrator identifies a specific strength of a MC student and then encourages the student to utilize that strength in the school setting. Examples of acknowledgement included public speaking, writing, leading groups or creating works of art.

Identifying students' strengths is a strategy that supports all students, not just MC students. Data from interviews, observations, and samples of work demonstrated that by identifying students' strengths, teachers were able to increase student engagement leading to growth in math and reading scores (Strahan, Kronenberg, Burgner, Doherty, & Hedt, 2012). Hedeen and Ayers (1998) conducted a case study that documented the importance of acknowledging students' strengths as a method to help alleviate behavioral challenges. The authors identified key elements of a positive behavior support plan. These included identifying a support team, implementing prevention strategies, determining student strengths, finding out the purpose of the negative behavior, delivering supportive responses to poor choices, and teaching new skills.

Numerous researchers have recognized the importance of a positive school culture in fostering resiliency in MC students (Guzman, 2014; Masten, 2013; Riggs & Riggs, 2011; Wadsworth, 2013; Williams, 2013). Masten (2013) defined resilience as "the successful adaptation of a system in response to significant challenges"(p. 200). Masten (2013) hypothesized that the MC students' resilience is positively impacted by family, school and community support. In other words, when the culture of a school is warm and

welcoming to the MC student, the school creates an environment that promotes resiliency in the MC student. Mmari et al. (2010) formed 11 focus groups comprised of MC students, parents and school personnel. The objective of their study was to better understand how MC students cope with stress. Transcripts were coded and the results confirmed that MC students navigate frequent moves and a parent deployment quite well if they are able to develop strong social ties in a positive school culture. Based on a review of systems theory and a resilience framework, Masten (2013) conceptualized that military children under stress may become stronger and more resilient over time in a positive school culture.

After an extensive review of literature covering military culture, Wadsworth (2013) came to the conclusion that school staff can create a welcoming culture for MC students by highlighting the positive aspects of military life. This can be accomplished through expressions of gratitude and pride in the MC student and their parents. School staff can encourage the MC student to share their travel experiences, particularly if they have traveled to other states or countries. To further support a positive school culture, Wadsworth (2013) stated that teachers, counselors and administrators should never assume that they know the experience of a military child, should not discount MC students' feelings, or indicate a negative attitude toward the military. These actions could create a hostile environment for MC students.

Following a qualitative study based on interviews of principals, school counselors and teachers at eight public schools, Garner et al. (2014) also emphasized that educators must realize that there is no single approach to address the needs of all MC students. Instead, the authors reported that each student should be evaluated as an individual, with

unique perspectives, influences and challenges. The data were collected through one-hour focus groups using a modified nominal group technique (Moore, 1994). The goal was to collect a broad range of ideas while ensuring that all participants' ideas were collected for analysis.

Communication.

Nelson et al. (2016) wrote specifically about the communication strategies that the schools should use to support MC families. The authors recommended that the internal policies of schools should be designed to encourage the dissemination of MC student-specific information to all school personnel, including teachers. Nelson et al. (2016) also noted that teacher, counselor and administrator training should be provided to educate critical personnel on the strengths and challenges of MC students.

A school's direct communication with parents is also an important part of the support mechanism for MC students. Kudler and Porter (2013) assessed current programs that support military families through a community lens noting that one should not isolate the MC child from the family or the military community. The authors recommended that schools should use a systems approach to reach out to MC parents instead of waiting for the parents to contact the school when there is an academic or behavior problem with their child. The authors also noted that schools can proactively set up a routine communication schedule with the families in order to disseminate important information.

In an article that highlighted the unique needs of MC students whose parents are deployed, Williams (2013) recommended creating a survey for all families to complete when they initially enter a school district. A primary purpose of the form is for early identification of MC students. Williams (2013) explained that the form should be

designed to collect all data that will allow school personnel to effectively serve the students as well as their families. The schools can use the data to identify risk factors, needs and strengths of MC students. Examples of relevant data include: (a) branch of military service; (b) location of previous school enrollment; (c) special needs; (d) strengths or giftedness; and (e) extra-curricular interests and (f) hobbies (Williams, 2013).

Another topic that addresses the communication needs of military families is the internal one-on-one dialogue that occurs between MC students and all school personnel (teachers, administrators, or counselors). In a reflection on the ethical standards of school counselors, Cole (2014) communicated the need for counselors and other school staff to be culturally sensitive to military families. Counselors should understand military terms and the specific challenges that military families face in order to meet the needs of their MC children. Based on personal experience working with MC students, Rossen and Carter (2012) recommended that during a parental deployment, school staff should understand the implications and stressors of deployment and encourage the student to discuss the parent's absence with them in order to help normalize the experience and to give them an opportunity to express their concerns.

Connection to resources.

School personnel, particularly counselors and teachers, are in strong positions to connect MC students and their parents to school and community resources. School-based program initiatives can include support groups, mentors, subject specific tutors, small group and individual counseling (Guzman, 2014). Counselors can also refer military families to outside agencies that offer intensive therapy, military specific counseling and

intervention, and social services related to housing, clothing and other basic needs. The local School Liaison Officer (SLO) housed on a military based is a first point of contact for these types of referrals. The SLO is trained to provide interventions for military families and can offer helpful resources such as counseling referrals and connection to military specific resources.

Counseling interventions that are recommended for MC students include: problem solving; cognitive restructuring/reframing; emotional regulation; communication training; and stress management (Guzman, 2014; Nelson et al., 2016). These strategies are familiar to school counselors and will help address the MC students' anxieties, stresses, anger, and depression. The interventions can be delivered in small group and individual counseling sessions in a solution-focused, brief counseling format. If repeated therapy is needed, school counselors can refer military families to outside agencies for extended support.

There are multiple existing programs and resources that can support military families. The "I Care Support Strategy" described by Johnson and Ling (2013) outlined a process to identify, interview, provide for, and encourage military children. This program can easily be adopted for use in a school setting by first identifying the MC students, assessing their concerns and risks, conducting face-to-face interviews, identifying needed interventions and resources, and providing a source of encouragement throughout the entire process. Counselors, teachers and administrators can all play a part in this intervention. Additional programs include FOCUS (Families Overcoming Under Stress) (Astor et al., 2012) and ADAPT (After Deployment, Adaptive Parenting Tools) (Gewirtz & Davis, 2014). School counselors can refer military families to any locally available

programs. These programs use FST to work with military families as they go through transitions and challenges (Nelson et al., 2016).

MC students who live far away from bases and military services experience the greatest risk of feeling isolated and unsupported as documented by Nelson et al. in a study that described how military culture impacts children (2016). The authors noted that personnel in schools located far from military bases may not have awareness of military culture. Also, families may be separated from the on base resources available to military families, such as discounted groceries, support groups, expert providers in mental health challenges of military families, and counselors trained to deal with the difficulties that are encountered in military life. Living a long distance from military bases presents a risk factor for military families because they may have limited access to resources that are designed for their specific needs. In this situation, schools can utilize the help of the SLO to identify resources specific for military families.

An important tool and resource for MC families and schools is the Interstate Compact on Educational Opportunity for Military Children (Compact) (Military Interstate Children's Compact, n.d.). The Compact was created to protect MC students as they transition from one school to another (Jackson, 2010). Key areas that are addressed in the Compact include: graduation eligibility; placement; enrollment; and participation in sports (Esqueda, Astor, & De Pedro, 2012). The legislation provides for equal treatment of MC students as they move from one state to another. The Compact provides guidance for schools so that MC students are not penalized when they are required to move due to military orders. Currently, all 50 states have adopted the Interstate Compact on Educational Opportunity for Military Children. In addressing the impact of school

transitions on military children, Ruff and Keim (2014) recommended that school counselors, enrollment staff, and administrators be familiar with state and federal legislation, such as the Compact, to be best prepared to serve the military students in their schools and to be compliant with law. The authors noted that previous studies reported stresses caused by relocation, such as, the pressure to develop new peer relationships (Kelly, Finkel & Ashbey, 2003), the need to adjust to changes in academic demands at new schools, (Engel, Gallagher, & Lyle, 2010), and the requirement to deal with parental deployment (Mmaria et al., 2010).

Parent Engagement

Parent engagement is important to MC families but also supports non-MC students during their K12 education. In a longitudinal study of over 5,000 students from 2009 to 2013, parent engagement levels were measured through surveys completed by the students (Garbacz, S., Zerr, A., Dishion, T., Seeley, J., & Stormshak, E., 2018). There was a positive correlation (0.76, $p < 0.01$) between the students' perception of their parent's level of school activity and the students' positive relationships with their peers. In another study, Jeynes (2011) reported that parent engagement positively influenced academic achievement ($d = .30$).

Since parent engagement has been shown to be important for all students, parent engagement may be able to mitigate risks associated with a military lifestyle. There are also parallels between the reported best practices for supporting MC students (Positive School Climate, Communication and Connection to Resources) and the list of recommended methods for supporting parent engagement in schools. Examples include

communication, connecting families to resources, sharing information and creating a positive school culture. This section defines parent engagement and explains why it is an important metric in assessing MC students' support in K12 schools.

Definition of parent engagement.

The term parent engagement came into use after 1996 (Pushor, 2012). Before then, K12 schools focused on parent involvement initiatives to involve families in the education of their children. Although involvement and engagement are sometimes used interchangeably, there is a distinct and important difference (Fenton, Ocasio-Stoutenburg, & Harry, 2017). Dearing et al. (2006) provided examples of parent involvement to include volunteering in the classroom, attending parent-teacher conferences and attending special assemblies and events. Engagement, when compared to involvement in the literature, encompasses a more reciprocal relationship between the school and home. Parent engagement involves parents providing input on school policy, having the opportunity to lead new initiatives and securing the respect of the school administrators.

Kim (2009) defined *parent engagement* as parents participating in their children's lives in an effort to influence the childrens' behaviors. Dishion and Kavanagh (2003) stated that parent engagement is demonstrated when parental support is integrated into the school. Examples would be parents visiting the classroom, strategizing with teachers on how to intervene when a student is struggling academically or socially, and parents invited to problem-solve with the school staff to address a particular issue such as mental health challenges.

Pushor (2012) described *strong* parent engagement as the school valuing parents' opinions at the same level as the teachers' opinions. Strong parent engagement results in

shared power between the home and the school. The parents' knowledge of their children is a critical resource that assists the teachers, counselors and administrators in designing and delivering an effective educational experience. In a meta-analysis of 28 studies that examined the relationship between parent school participation and student academic achievement, Jeynes (2017) noted that a large majority of articles included the importance of regular, two-way communication between the parent and the school as evidence of strong parent engagement. Dishion and Kavanaugh (2003) reported that parent engagement supports children by bringing parent support into the school, thus resulting in improved academic outcomes and a reduction in behavior issues. The authors used data from the Adolescent Transitions Program (ATP) (Andrews, Soberman & Dishion, 1995) to support the importance of parental involvement in a child's life to reduce anti-social behavior.

As part of an ethnographic case study examining the integration of immigrant students and parents into a school environment that valued parent engagement, Georgis, Gokiert, Ford and Ali (2014) concluded that parent engagement must be culturally responsive, result in the establishment of collegial relationships between parents and school personnel, and must give parents an authentic way to participate in their children's educational experience. The case study involved 33 semi-structured interviews with students, teachers, school leaders, cultural brokers and community partners and 1 focus group with 13 refugees. To be culturally responsive, the school district secured cultural brokers who understood the social, economic and cultural realities of the families. The study confirmed that a relational aspect of parent engagement refers to the fact that the parents and school staff must first establish trusting relationships, which include having a

voice in the decisions that are made at the school. For authenticity Georgis et al. (2014) described authentic parent participation as reflecting how the parents wanted to be involved and connected; authenticity is not only based on the what the school believed the parents should be doing but also on what the parents wanted to do. In an article analyzing parent involvement versus parent engagement, Fenton et al. (2017) supported the importance of parents having a voice in how they participate. The authors summarized that authentic parent engagement places parents in a position of control; they self-direct their interactions with the school, choosing opportunities as they are offered and suggesting new options that fit the way they want to be involved.

Cook, Shaw, Brodshy & Morizio (2017) used qualitative content analysis to interpret the results of two semi-structured interview sessions with 11 school and community leaders including parents, caretakers, community professionals and a teacher. The study was designed to investigate race, racism and power-dynamics in a school setting by using community dialogues as a way to bring people with different opinions and backgrounds together. As part of the findings, the authors stressed the importance of including parents in school decision-making. A common theme was that parents want to feel that their interactions with the school will make an impact on the future plans of the district.

The definition of parent engagement, according to researchers referenced thus far, includes elements of leadership, such as the school using parents' opinions to form policy and allowing shared power (Pushor, 2012). Parent engagement also includes collaborating on the education of children through shared decision-making (Cook et al., 2017) and routine two-way communication between the home and school (Jeynes, 2017).

According to Georgis et al. (2014) the focus of parent engagement is on forming relationships that seek to understand the cultural differences that exist and how these differences impact how parents participate in the education of their children. In summary, the various definitions of parent engagement coalesce to reveal a pattern of support for the inclusion of parent voice and choice in how they participate with the schools as a key element of parent engagement.

Importance of parent engagement.

Parent engagement has a positive impact on students' academic achievement (Jeynes, 2017; Hill & Tyson, 2009; Schueler et al., 2017). In Jeynes' (2017) meta-analyses using the existing body of literature about parent engagement, the author demonstrated that Latino students' academic performance improved as parent engagement increased. The statistically significant effect size for parent engagement was 0.52 ($p < 0.01$), which means that parent engagement has a moderate relationship with academic performance. In addition, Dearing et al. (2004) implemented a six year longitudinal study using data from kindergarten through 5th grade to examine the impact of family educational involvement on student literacy. The authors documented that an increase in parent engagement was correlated with positive feelings from parents and students toward the school and literacy, $r = 0.37$, $p = < 0.01$. In a qualitative study, DeNisco (2018) utilized a parent survey to determine that as parent engagement increases, so does the parents' level of satisfaction with the school. DeNisco (2018) indicated that parents want to have a voice in the creation of school policy, want to feel that their opinions are respected, and want to be actively involved in school related activities. The activities may include observing in their children's classrooms, being

invited to special events, and having an opportunity to collaborate with teachers and administrators in designing the best educational environment for each child .

Parent engagement has also been touted as an effective way to address student mental health concerns (Girio-Herrera & Owens, 2017). Merikangas et al. (2010) discovered through a literature review that 25-30% of mental health disorders appear in early childhood, yet, only 20-30% of those with mental health problems receive the necessary care. Girio-Herrera and Owens (2017) used a randomized controlled pilot study with parents and students in 18 kindergarten classes to evaluate the impact of parent engagement on the families' follow-through in addressing their students' mental health challenges. The authors reported that frequent engagement opportunities between the school and the families built trust with parents. Having a trusting relationship between the families and the school made it more likely that parents will follow-through with mental health supports after school screenings reveal potential issues for specific students. Based on the pilot study, Girio-Herrera and Owens (2017) concluded that increased parent engagement may result in more students with mental health issues receiving the necessary interventions, such as counseling and pharmaceutical support. The authors hypothesized that these interventions will increase the students' potential for future success.

Parent engagement strategies can also be used to address potential student behavior problems before they become an issue (Moore et al., 2016). By using a parent survey which asked about students' strengths and needs in eight middle schools, Moore et al. (2016) concluded that parents became part of the problem-solving process by completing the survey. Because they were asked to complete the survey, the parents felt

that their opinion, perspective and knowledge were valued. The authors reported that this strategy, where parents are asked about their child's strengths and needs, increases the possibility of forming a good working relationship between home and school and may mitigate problems before they arise.

Influences on parent engagement.

Researchers have reported that parent engagement in K12 schools is impacted by parent socio-economic status and level of education (Erol & Muhammed, 2018; Lawson & Alameda-Lawson, 2012). In a study comparing parent engagement levels of 1,388 students in 33 secondary schools, Erol and Muhammed (2018) found that as the parents' education level increased, the students' perception of parental engagement also increased ($F = 7.48$, $p < .05$). Fantuzzo et al.'s (2013) efforts to validate a parent survey to measure parent involvement in early childhood education substantiated Erol and Muhammed's (2018) conclusion, specifically reporting the positive effect that a mother's level of education had on parent engagement with their child's school. The MANOVA indicated that there was a significant difference in parent participation based on the mother's level of education, $F(3, 426) = 4.19$, $p = .01$.

Following a case study of three schools with community collaborations to support parent engagement, Warren, Hong, Rubin, and Uy (2009) reported that parents with lower incomes are sometimes lacking the resources and experiences to navigate the school environment. Further support for this assumption came from Lawson (2003) who conducted ethnographic semi-structured interviews to better understand school-family relationships. The results of the investigation revealed that parents with lower means may have less time to devote to their children's education due to the hassle of their everyday

life and due to trying to make ends meet. Lawson (2003) also reported that the lower means families felt that the school ignored families from lower different socio-economic backgrounds and schools were not effective at reaching out to parents.

Summary

MC students in public schools are a sub-set of students who may face unique challenges due to the demands of a parent's military commitment. The challenges include frequent relocations and parental deployment (Flake et al., 2009). Due to these challenges, some MC students experience academic, behavioral and emotional crises that impact their school experience and possibly their future success (Hardaway, 2004). As caring communities designed to support all students, public schools are positioned well to establish interventions that will mitigate potential risks for the MC children.

The objective of this research project was to utilize parent engagement as the dependent variable to conduct a comparative analysis between MC and non-MC families. Since research findings presented thus far documented that income and level of education have an impact on parent engagement, information on these income and level of education was also collected in this study to enable the researcher to control for their potential impact. Since the objective was to determine if there is a significant difference between the engagement levels of MC and non-MC families, previously identified determinants that will have an impact on parent engagement were included in the analysis to assess whether any significant differences are related to the study variable (military connectedness) versus an extraneous variable (income and education).

The literature reviewed in this chapter included intervention strategies for the MC Child. First, identification of the MC children in each school should be required. The district can then provide support for the MC children by: (a) creating and maintaining a positive school culture (Cole, 2014); (b) developing a strong communication strategy (Williams, 2013); and (c) by making connections to internal and external resources that are designed to address the main concerns and challenges of this population (Guzman, 2014). Also, the best practices for supporting MC students can be partially met by establishing a strong parent engagement program in the K12 school.

This study used a family system perspective to investigate parent engagement levels of MC and non-MC parents. Parent engagement in K12 schools has been correlated with increased academic achievement, improved mental health and can also be successfully used to address behavior problems. Moore et al. (2016) documented that schools can improve the level of parent engagement by creating an effective and thorough communication plan, providing strong administrative support, providing opportunities for parents to engage and establishing an inclusive school culture.

The information presented in the literature review established that MC students may experience significant challenges during their K12 education. In addition, the literature about parent engagement demonstrated that initiatives in this area may be effective at mitigating risks and improving the outcomes for MC students, as well as for all students in the school community.

CHAPTER 3: RESEARCH METHODS

Parent engagement leads to successful partnerships between the home and school resulting in improved academic success and a reduction in behavior issues (Dishion & Kavanaugh, 2003). Parent engagement involves parents taking an active role in the decision-making processes that will impact their children's experiences in the school (Ferlazzo, 2011). Researchers have suggested that schools that engage parents in the education of the students produce motivated learners with high future aspirations (Jeynes, 2017; Kraft, 2017). The children of engaged parents also have a sense of belonging as well as high academic marks (Georgis et al., 2014).

Although K12 parent engagement as a topic has been increasing as an area of focus for school administrators across the country, little data exist regarding the parent engagement levels of MC families as a separate group. Parent engagement was selected as the dependent variable in this study because this type of parent participation has been linked to positive student outcomes. Through a Family Systems Theory (FST) lens, this study proposes that the positive benefits of parent engagement may serve as a defense against the challenges experienced by MC students in elementary public schools. In FST the interactions between the school and the family have a direct impact on the child. In light of this, an analysis of the parent engagement levels of MC parents may help school and district leaders determine if the necessary structures are in place to support the MC students that they serve. Efforts to increase parent engagement may then result in decreased negative impacts related to the risks that MC students encounter.

This chapter presents the selected methodology that was used to answer the research questions. One goal of this dissertation was to analyze and compare the school engagement levels of MC parents in an elementary school environment with non-MC parents in the same environment. A second objective was to analyze whether the percentage of MC families in a school impacts their level of parent engagement. A quantitative research design using a self-report survey was selected to answer these two questions (RQ1 and RQ2). To answer RQ3, a phenomenological approach was used. Two open-ended questions were added to the survey to provide information comparing how MC and non-MC parents describe how their schools can increase parent engagement and support military families.

Philosophical Paradigm

The philosophical paradigm of the researcher is relevant because of the impact that a researcher's worldview has on the study design. More specifically, the research methods are derived based on the ontological and epistemological views of the researcher. Ontology is described as what is reality or what is known to exist or be real (Ward, Hoare & Gott, 2015). Epistemology is concerned with how we create knowledge or how we know something (Gopinath, 2015). This study was conducted with a philosophical perspective of post-positivism. Post-positivism was described by Eagleton (2003) as a perspective that values empirical data, but also human passion and politics. The post-positivism paradigm relies on ethics and the importance of seeing the whole picture. Post-positivists emphasizes cause– effect linkages of phenomena that can be studied, identified, and generalized, and offers an objective, detached researcher role

(Ponterotto, 2005). Post-positivism also values people over facts; theories help to explain facts and figures.

Research Questions

The goal of this research project was to conduct a comparative analysis of the parent engagement levels of MC and non-MC parents of public elementary school children. After reviewing the literature about parent engagement and MC students, there appeared to be a gap in literature on the engagement levels of MC parents in public schools. Since parent engagement is linked with academic and behavioral success for students (Jeynes, 2017; Dishion & Kavanaugh, 2003), this study proposed that parent engagement is an important variable to assess specifically for MC families whose children may face increased risks due to the factors associated with a military lifestyle.

Question 1 (RQ1): Does the parent engagement level of MC parents in elementary public schools differ significantly from non-MC parents' levels of engagement in elementary public schools while controlling for income and education?

Hypothesis 1: There is a statistically significant difference between the parent engagement levels of MC and non-MC parents in public elementary schools while controlling for income and education.

Question 2 (RQ2): Does a lower proportion of MC parents in public elementary schools relate to a significantly lower level of MC parent engagement when compared to public elementary schools with a higher proportion of military families while controlling for income and education?

Hypothesis 2: A lower proportion of MC parents in public elementary school relates to a significantly lower level of MC parent engagement when compared to a public elementary school with a higher proportion of MC families while controlling for income and education.

Question 3 (RQ3): What are key similarities and differences in how elementary MC and non-MC families believe that schools should increase parent engagement and support military families?

Conceptual Framework

Family systems theory (FST) (Bronfrenbrenner,1978) was used as the conceptual framework to explain the connection between parent engagement and student success. From a family systems theory lens, experiences of one member of a family unit will have a direct impact on the other members of the family. Therefore, based on a review of the literature, this researcher proposed that if parents have a high level of engagement with their child's elementary school, the student specific risks associated with a military lifestyle may be mitigated. Figure 2 represents the interactions and influences that occur between the family, the school and the child.

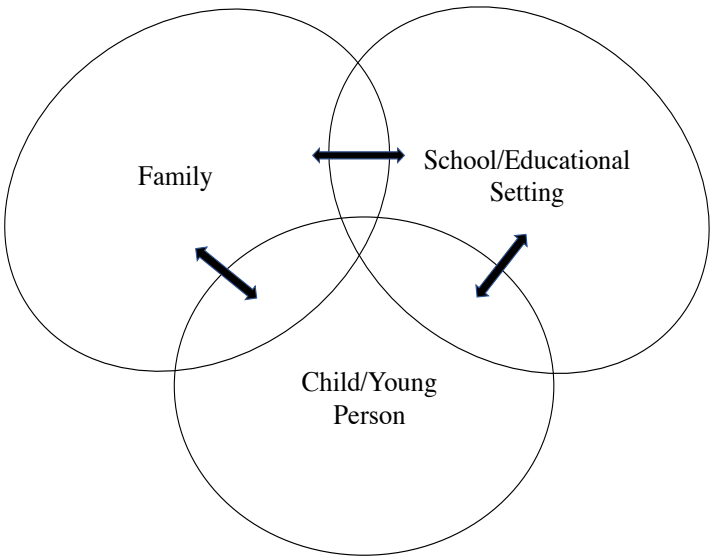

Figure 2. The Family, School, Child System. This figure shows the connection between the family, the school, and the student. The model was adapted from the Family Systems Theory model proposed by Bowen (1978).

Operational Model

For this study, the focus was on the parent's interactions with the school measured through a family-school partnership survey, and on the projected positive impact on the child. The positive impact is projected to occur if parent engagement levels with the school are high, thereby mitigating the negative impact of military deployments and frequent relocations. Figure 3 uses Adam's family life cycle model (2011) to depict military connectedness as an input to the family system. This is projected to cause stress on the system. The conceptual model also includes parent engagement as a family interaction. Based on a review of the literature, when parent engagement with the schools

is incorporated into the model, the output is improved. In the model, this improvement is listed as student success.

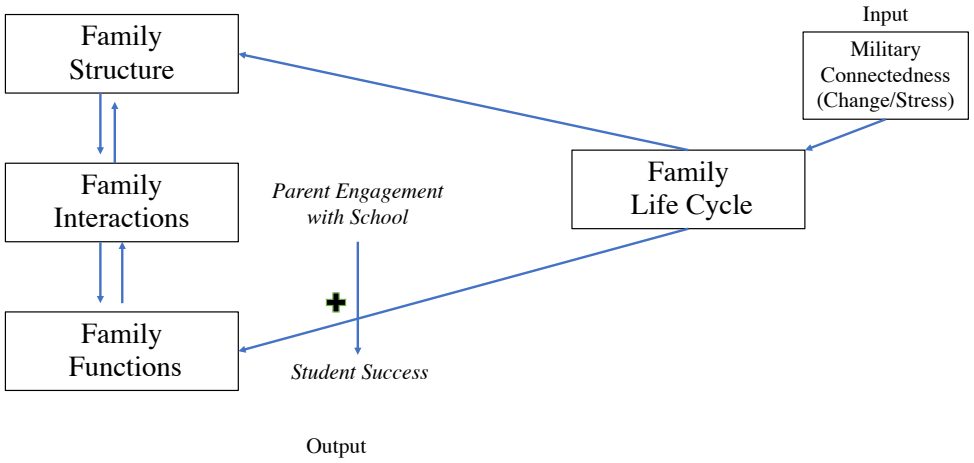

Figure 3. Conceptual model showing connection between family systems theory and military parents' engagement with their children's schools. The figure was adapted from Allen's model developed to depict the various interactions in Family System Theory (2011, p. 3)

Figure 4 presents a visual model of the independent and dependent variables in this study. The dependent variable is parent engagement. One independent variable is military connectedness which is shown in the model as a family system stress due to parental deployment and frequent relocations. The percentage of MC students in the school is a second independent variable and is shown as a potential mitigating factor as this study theorized that there may be greater MC parent engagement if the school has a higher proportion of military families.

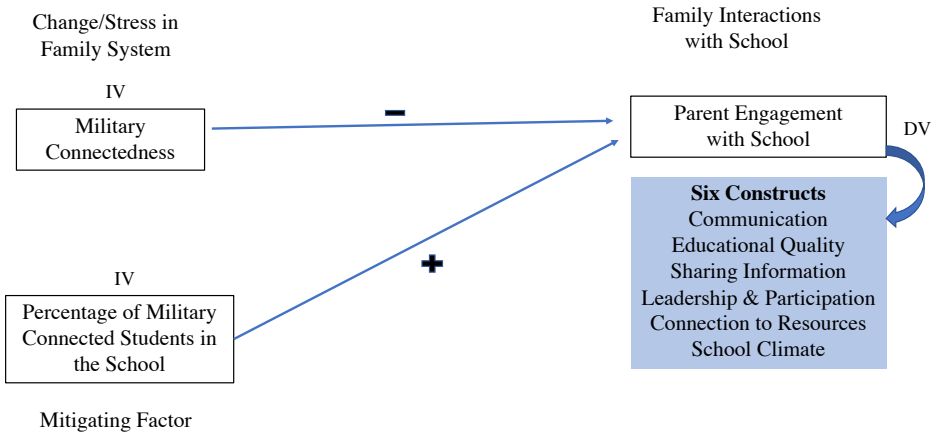

Figure 4. Parent Engagement Operational Model. This figure is a conceptual model depicting the impact of military connectedness and percentage of MC parents in a school on parent engagement.

Research Design

To answer the first two research questions, a quantitative research design was employed. A public domain, self-report survey was used to measure parent engagement at public elementary schools for MC and non-MC parents at elementary public schools near a large military base in the midwestern United States. The selected survey was developed at Ohio State University (OSU) for a 2016-2017 implementation and is recommended by the Ohio Department of Education to aide in the development of family, school, and community partnerships to help support the educational experience of Ohio's K12 students. More details about the survey are provided in Table 3.

The OSU parent engagement survey questions are divided into six sections. These include Sharing Information, Communication, Educational Quality, Leadership and

Participation, Connection to Resources and How You See Your School (School Climate). The sections are somewhat aligned with the constructs identified by OSU. During the analyses, all constructs were evaluated individually first and then an overall score for parent engagement was calculated as an average of all six constructs. Figure 1 depicts how each of these constructs contributes to the total picture of parent engagement.

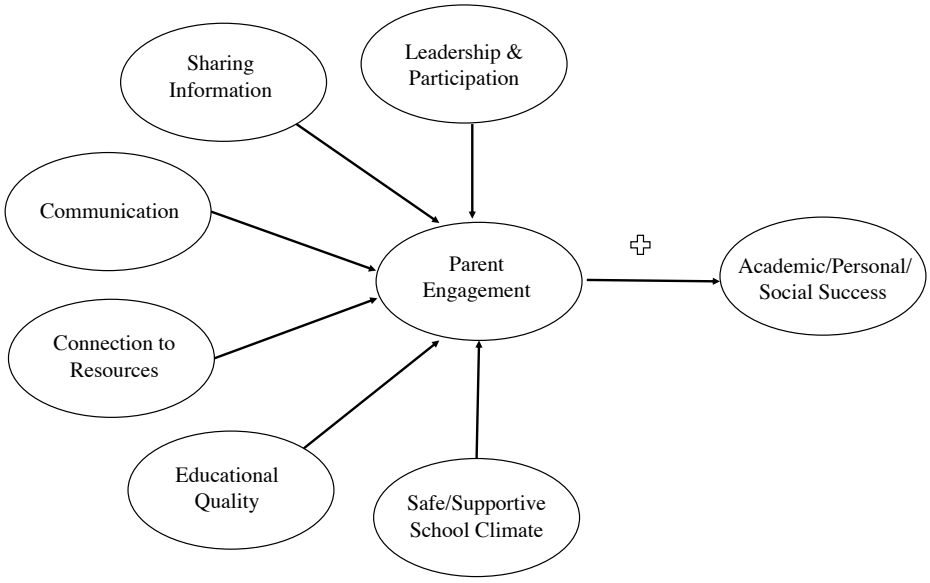

Figure 1. Parent school engagement model

In addition to the questions related to parent engagement, the survey also included questions to gather demographic data and to answer the third research question. For RQ #3 two open-ended questions were added to the parent engagement survey. The open-ended questions are listed below.

- Please provide suggestions describing what the school could better do to support your involvement in your child's learning
- Please provide information describing what your child's school could better do to support military families.

Participants

Convenience sampling was used in participant recruitment. The researcher contacted K-12 school district leaders in a Midwestern state near a large military base. Once the Superintendents approved the request for participation, the school principals were contacted to schedule survey distribution and to provide data about the number of students in each grade level along with the number of MC families in each grade level. During these communications, the scope and purpose of the study were described. Sample letters for Superintendents, Principals, and parents were provided for use in communications with parents. The superintendents could modify the sample parent email as needed for their district. The samples are included in Appendix A (Superintendents), Appendix B (Principals,) and Appendix C (Parents).

The school administrators agreed to email the survey link to all families who have students in the elementary schools. The survey was open from March 2019 until August 2019. Qualtrics was used to collect the responses. A follow-up email was sent through Qualtrics (Appendix E) each week after the first email as a reminder to parents.

Participating in the study were three school districts which included a total of 12 elementary schools. The rationale for selecting elementary schools was that a higher proportion of active duty military families have students in the lower grade levels versus middle or high school (Nelson et al., 2016). The decision to recruit elementary schools was selected to increase the likelihood of obtaining a suitable sample size of military family responses to allow a comparison with non-military parents.

Participation was voluntary and no identifiable data were collected. The emails sent to all families of the participating districts were sent directly from the school to the parents to further avoid any potential infringement upon the privacy of the participants.

Sample Population

Of the 620 responses received, 357 respondents indicated that they were connected to the military. Respondents were asked to indicate their district, school, whether or not they were military connected and answer the questions for at least one of the six survey sections in order to be included in the analyses. If a respondent did not indicate that they were either military or non-military, their data were excluded from the analyses. Table 1 provides general respondent data for the quantitative analysis.

Table 1

Respondent Data - Quantitative Analysis

	Total Responses	Total Population	% Responses	# MC	% MC	# MC Responses	% MC Responses
District 1	268	3587	7.5	1263	35.2	49	3.88
District 2	45	2027	2.2	350	17.2	3	0.85
District 3	44	1511	2.9	227	15	6	2.64
Total	357	7125	5.0	1840	25.8	58	3.15

Regarding the responses to the open-ended questions, of the 620 responses, 82 non-MC parents and 18 MC parents answered the questions and were included in the qualitative analysis for the first open-ended question which requested that respondents

provide suggestions describing what the school could do better to support their involvement in their child's learning.. Of the 620 responses, 41 non-MC parents and 13 MC parents answered the second question for the analyses. The second open-ended question asked respondents to provide information describing what their child's school could better do to support military families To be included in the qualitative analyses, respondents had to have indicated whether or not they were military connected and to have answered at least one of the open-ended questions. Table 2 provides a summary of the number of responses for the qualitative data. All others were excluded from the analysis because the key descriptive information related to the study (MC status) was missing.

Table 2

Respondent Data - Qualitative Analysis

	Q53 Responses non-MC	Q53 Responses MC	Q54 Responses non-MC	Q54 Responses MC
District 1	11	1	7	1
District 2	66	17	32	12
District 3	5	0	2	0
Total	82	18	41	13

Instrumentation

The Family-School Partnerships Parent Survey was used to collect parent engagement information for this research project. The free, public domain survey was developed by researchers at Ohio State University to measure parent engagement in the

following areas: (a) empowering families with information; (b) creating channels of communication; (c) offering families opportunities to participate; (d) connecting families to school and community resources and supports; (e) meeting students learning needs; and (f) provide a welcoming school climate. The survey allowed the researcher to conduct a quantitative analysis of parent engagement in six areas: (1) sharing information; (2) communication; (3) educational quality; (4) leadership and participation; (5) connection to resources; and (6) how you see your school (school climate). The six categories are supported in the literature as key topics for defining and measuring parent engagement (Epstein et al., 2009; Marzano, 2003). I

- Sharing Information – Measures whether parents receive information from the school that helps them support the academic and personal/social development of their children
- Communication – Measures whether communication between home and school is timely, that parents find relevant and helps parents to be actively involved in their children's education
- Educational Quality – Measures whether the school solicits the opinion of the parents as the academic plans are made for each child and if the educational goals are appropriate
- Leadership and Participation – Measures whether the parents feel welcome and supported as important stakeholders in school decision making and strategic planning

- Connection to Resources – Measures whether the school provides the parents with connections to important community resources that will support the social, emotional, physical, academic and special needs of each child
- How You See Your School (school climate) – Measures the parents' overall impression of the school climate and culture.

Questions that are specific to the sample population and research objectives were added to the survey. The additional questions address military connections and specific demographic information that are relevant to the study. Questions that were added are listed below along with the rationale for their inclusion.

1. Is there a direct military connection in your household (Mother, Father or Primary Caregiver is currently active duty military)? – Needed in order to differentiate between military families and non-military families
2. How long has your child attended this school? – Added to provide background data on family longevity in the district
3. How many times has your child changed schools since Kindergarten? – Added to provide background data on how often children in the district change schools
4. What is the highest degree or level of school you have completed? and What is your total household income? – Prior researchers (Fantuzzo et al., 2013; McWayne, Campos, & Owsianik, 2008) discovered that parents who had higher educational attainment and higher household incomes had greater engagement levels in the schools. This question was added so that these variables can be controlled when looking for significant differences between the populations

5. My school recognizes the military connections of our family – Under the "How You See Your School" category – This question addresses the need for military families to have their specific situation recognized in the school
6. Please provide suggestions on what the school could do better to support your involvement in your child's learning – To differentiate between the needs and perceptions of military and non-military families
7. Please provide additional information on what the school could do better to support military families – To differentiate between the needs and perceptions of military and non-military families

The revised survey is included in Appendix D.

Reliability and validity.

The Family School Partnership Survey was developed for use by the Ohio Department of Education. Internal consistency was reported for each of the sub-scales in the survey (M. Wellman, personal communication, June 8, 2018). The values are listed in Table 3.

Table 3

Family School Partnership Survey Data

Parent Engagement Construct	Number of Questions	Alpha
Sharing Information	4	0.90
Communication	5	0.89
Educational Quality	6	0.87
Leadership & Participation	5	0.85
Connection to Resources	2	0.84
How You See Your School (School Climate)	16	0.98

The high reliability values provide confidence that the statements in each of the sub-scales have high internal consistency and are measuring the same parameter. These values were calculated from 593 families in a PK-12 school district in Ohio during the 2016-2017 school year.

Confirmatory factor analysis (CFA).

In order to determine whether the research data set fits the expected latent variables laid out by the Family School Partnership survey, a confirmatory factor analysis (CFA) was conducted. The "lavaan" package in RStudio version 1.2.1335 (RStudio, Inc. Boston, MA) was used for the CFA. Although there were 357 observations in the data set, the CFA requires that there are no missing values for any of the survey questions. Given this only 114 responses were able to be used in the analysis. All of the correlations are statistically significant (all *p*-values less than 0.0005) indicating that the data set is

yielding the same constructs as what the instrument was designed to measure. The CFA results are listed in Appendix F.

Data Analysis Plan

Quantitative analysis.

Research questions 1 and 2 were answered through a series of Analyses of Covariance (ANCOVA). SAS version 9.4 (SAS Institute, 2013) was used for all analyses and all plots were created using RStudio version 1.2.1335 (RStudio, 2020). Before analyzing the data, the assumptions of normality and homogeneity of variance were analyzed. Descriptive statistics (mean, median, mode, and standard deviation) were also calculated for all of the constructs and demographic data. The summary statistics were calculated for each of the 12 schools and were aggregated by MC status. The data were generated for each construct (Sharing Information, Communication, Educational Quality, Leadership and Participation, Connection to Resources and School Climate) and for the Total Parent Engagement.

The Analyses of Covariance (ANCOVA) were conducted to examine differences between groups on the single dependent variable (Parent Engagement) for each of the six constructs as well as a total parent engagement average, after controlling for the effects of two covariates (income and education). The ANCOVA model incorporates both factors and covariates that may influence the dependent variable. The ANCOVA was used to test the main effects of the independent variable (military connectedness or percentage of military connected students) on a dependent variable (parent engagement) while controlling for years of education and income level. The covariates were chosen because

of their known effects on parent engagement. The purpose of controlling for the covariates is to account for the effects of those variables on the dependent variable and to determine if the effects are due to the covariate as opposed to differences between groups. This step assisted in the analysis of the significance of the results.

Significance was determined by using the *F*-test. The F-test statistic was used to determine whether or not the differences in the means of multiple populations is significant. If significance was found, the role of the covariates was determined by comparing the original and adjusted group means. A level of significance of $\alpha = 0.05$ (two-tailed) was used throughout to assess for statistical significance.

Qualitative analysis.

The qualitative analysis portion of this research project was a phenomenological study (Creswell, 2018) exploring the lived experiences of the MC parent regarding their perceptions of being engaged in their children's schools. To gather these data, two open-ended questions were added to the parent engagement survey. The researcher first analyzed the responses by identifying themes and patterns to assist in the interpretation of the participant survey responses (Lincoln & Guba, 1985). Initially a deductive approach was considered. A deductive approach uses the research objectives to develop codes (Thomas, 2003). Based on this approach, the initial codes considered were the six constructs of the parent engagement survey (Sharing Information, Communication, Educational Quality, Leadership and Participation, Connection to Resources, and School Climate). Ultimately an inductive approach was selected because the approach allowed themes to emerge from the open-ended responses. The inductive approach allowed a

more expanded representation of the thoughts and perspectives of the MC and non-MC parents. The codes based on the deductive approach using the research objectives of the research might have missed main themes that were discovered in the inductive coding.

Based on the inductive coding approach (Thomas, 2003), the researcher initially reads the text and attempts to ascertain what the respondents meant by their statements. Next, sections of the text that contained meaningful content are highlighted. After this, codes are created that captured the main themes of the selected statements. Codes are then matched with the highlighted text and the number of times each code appeared for the specific open-ended question was calculated for the sample. Trustworthiness of the analyses was addressed through a random sampling strategy, a replicable research design, using bracketing in the development of codes, and adopting a data analysis strategy that was successful in other projects (Shenton, 2004). The coding categories are included in Appendix G.

Ethical Considerations

The Institutional Review Board (IRB) process was followed to address ethical concerns that could be associated with this research study. Before beginning this research project, an application was submitted to the Institutional Review Board (IRB). At that time, a request for approval at the exemption level was made. This assumption was based on the fact that the research is based on surveys in which the respondents' identities will be kept confidential. This met the definition of exempt research based on 45 CFR 46.101 and the study was approved.

Summary

This chapter described the methods and procedures that were utilized to address the research questions related to military parent engagement in elementary public schools. The sections addressed include a general overview, research questions, research design, setting, sample population, instrumentation and data collection procedures. Sections on reliability and validity of the survey and ethical considerations are also included. The research design was selected to effectively facilitate the collection and analysis of data on the engagement levels of parents in elementary public schools. The descriptive statistics presented in this chapter support the goal to compare MC and non-MC responses, and to investigate how the ratio of MC in a school might impact the engagement levels of military families.

CHAPTER 4: RESULTS

Introduction

The purpose of this study was to compare the parent engagement levels of MC and non-MC parents in public elementary schools. Parent engagement was selected as the dependent variable in this research project due to the research-based connection between parent engagement and student success. The results may provide information that will help K12 schools to develop strategies to increase parent engagement in MC families, thereby, to decrease negative impacts related to the stresses and strains of a military lifestyle.

This chapter provides a detailed report of the quantitative analysis findings conducted on the responses to the parent engagement survey and the qualitative investigative review of the open-ended responses. Research questions 1 and 2 were answered using ANCOVAs to explore significant differences between MC and non-MC parents' responses while controlling for two covariates, income and education.

Data Collection

The parent engagement survey was sent to all elementary school parents of three districts during the second semester of the school year. A total of 620 individuals completed the online survey, but only 357 of those indicated that they were connected to the military. Sample sizes for each of the three districts are included in Table 4. District 1

had the largest number of participants and the largest percentage of the population that responded. District 1 also had the largest percentage of MC families.

Table 4

District Specific Sample Data

District	Responses	Population	%	#MC	%MC	#MC Responses	%MC Responses
District 1	268	3587	7.5	1263	35.2	49	18.3
District 2	45	2027	2.2	350	17.2	3	6.7
District 3	44	1511	2.9	227	15	6	13.6
Total	357	7125	5.0	1840	25.8	58	16.2

Demographic data.

The parent engagement survey provided demographic data on the two covariates, income and education. Table 5 contains the information on the respondents' level of education and Table 6 provides details on the parents' income.

Table 5

Frequencies for Highest Degree Earned

Highest Degree	Frequency	Percent	Cum. Freq.	Cum. Percent
Less than High School	2	0.57	2	0.57
High School or GED	12	3.4	14	3.97
Some College, No Degree	59	16.71	73	20.68
Associate's Degree	47	13.31	120	33.99
Bachelor's Degree	116	32.86	236	66.86
Master's Degree	94	26.63	330	93.48
Doctorate/Professional Degree	23	6.52	353	100

Table 6

Frequencies for Income

Income	Frequency	Percent	Cum Freq	Cum Percent
Less than $25,000	6	1.83	6	1.83
$25,000 to $34,999	10	3.05	16	4.88
$35,000 to $49,999	26	7.93	42	12.80
$50,000 to $74,999	50	15.24	92	28.05
$75,000 to $99,999	79	25.09	171	52.13
$100,000 to $149,999	105	32.01	276	84.15
$150,000 or more	52	15.85	328	100

Questions that were specific to the experiences of MC families were included in the survey. The questions were related to aspects of military life that may cause increased stress on the family, thereby, increasing the likelihood that a child may have difficulty in school. These include the number of school changes and parent deployment while the child was in school. Table 7 focuses on the number of school changes reported by the parents and Table 8 provides data about the parental deployment.

Table 7

Frequencies for Number of School Changes for MC Families

School Change	Frequency	Percent	Cum Freq	Cum Percent
No Changes Yet	30	51.72	30	51.72
One Change	16	27.59	46	79.31
Two Changes	7	12.07	53	91.38
Three Changes	4	6.90	57	98.28
More than Three Changes	1	1.72	58	100

Table 8

Frequencies for Parent Deployed While Child Attended School

Deployed	Frequency	Percent
No	47	82.46
Yes, Mother	1	1.75
Yes, Father	9	15.79

In order to answer RQ 3, data on the percentage of MC students in a school is needed. The data was collected from district contacts and was specific to the 2018-2019 school year. The school specific data on the percentage of MC students for all 12 elementary schools included in this study are included in Table 9.

Table 9

Percentage of MC Students in Elementary Schools

District	School	Percentage of MC Students
1	1	17.9
	2	16.0
2	1	46.7
	2	29.5
	3	31.9
	4	36.0
	5	31.2
	6	29.9
3	1	46.3
	2	5.6
	3	11.8
	4	1.00

Descriptive statistics for constructs.

The parent engagement survey consisted of six subcategories or constructs. Parents needed to answer all sections of a construct for it to be included in the analyses. The total parent engagement (Overall Score) included all of the six constructs. The descriptive response statistics are included in Table 9. Table 10 shows the response statistics separated out by MC and non-MC parents.

Table 10

Descriptive Statistics for Constructs

Variable	N	Mean	Std Dev	Minimum	Maximum
Sharing Information	345	3.90	0.87	1.00	5
Communication	338	4.15	0.81	1.00	5
Educational Quality	264	3.76	0.87	1.00	5
Leadership & Participation	160	3.90	0.84	1.17	5
Connection to Resources	325	3.64	1.07	1.00	5
School Climate	330	4.12	0.69	1.18	5
Overall Score	114	4.06	0.71	1.35	5

Table 11

Descriptive Statistics for Constructs by MC Status

MC	N Obs	Variable	N	Mean	Std Dev	Min	Max
Yes	59	Sharing Information	58	3.78	0.96	1.00	5
		Communication	59	4.14	0.77	1.6	5
		Educational Quality	43	3.56	1.00	1.67	5
		Leadership & Participation	22	4.01	0.98	1.5	5
		Connection to Resources	54	3.43	1.21	1.00	5
		School Climate	54	4.04	0.75	1.18	5
		Overall Score	16	3.86	1.00	1.35	4.88
No	298	Sharing Information	287	3.92	0.85	1.00	5
		Communication	279	4.16	0.82	1.00	5
		Educational Quality	221	3.8	0.84	1.00	5
		Leadership & Participation	138	3.88	0.81	1.17	5
		Connection to Resources	271	3.68	1.04	1.00	5
		School Climate	276	4.14	0.68	1.24	5
		Overall Score	98	4.10	0.65	2.13	5

Quantitative Results

Assumptions.

Certain assumptions must be assured when utilizing ANCOVA (Analysis of Covariance). These include random independent samples; homogeneity of variance; normality; and the relationship between the covariate and the dependent variable must be

linear (Harwell, 2003). These model assumptions were checked and met for each of the ANVOCA analyses required to answer the research questions in this study.

Research Question 1.

Research question 1 (RQ1) – Does the parent engagement level of military connected (MC) parents in public elementary schools differ significantly from non-MC parents' level of engagement in public elementary schools while controlling for income and level of education

$H_0$1 - There is not a statistically significant difference between the parent engagement levels of MC and non-MC parents in public elementary schools while controlling for income and level of education.

There are six constructs within the survey: Sharing Information; Communication; Educational Quality; Leadership and Participation; Connection to Resources; and School Climate. The parents' levels of engagement were determined by averaging the responses for each of the six constructs as well as for the average of all constructs. RQ1 was answered using a series of ANCOVAs (Analysis of Covariance). A series of ANCOVAs for the six constructs were computed as well as a seventh one representing the overall average of the constructs.. The response variable was calculated as the average score for each of the constructs as well as the overall average score across all six constructs. In each case, the respondent's data were only included when a respondent provided an answer for every question for a given construct. The independent variables in this analysis included the military connection status, as well as the two control variables, income and the parent's highest educational degree earned. Income and education were

measured on a seven level Likert scale. Both control variables had seven options, and each parent's response was treated as its corresponding numeric value from 1 to 7. All model assumptions were met for each of the seven ANCOVAs that were run to answer RQ1.

For this study, the models with all three main effects, all two-way interactions, and the three-way interaction were run first. Then, if the three-way interaction (MC/Education/Income) was not significant (the *p*-value was greater than 0.05) it was removed and a model with all three main effects and all two-way interactions (MC/Income, MC/Education, Education/Income) between all possible pair-wise combinations of the independent variables was run. If no significance was found in the two-way interactions, a model was run that only included the three main effects (MC, income, education). The final model provides the only run in which the main effects of the three variable of interest can be assessed.

RQ1 - Construct 1: Sharing Information.

There is not sufficient evidence to suggest that there is a three-way interaction (MC/Education/Income) for the Sharing Information construct in the parent engagement survey [$F(1, 310) = 0.46, p = 0.50$]. Therefore, this term was removed and the model with all two-way interactions was executed. There is strong evidence to suggest there is a significant two-way interaction between MC and income [$F(1, 311) = 4.01, p = 0.046$]. There is not sufficient evidence to suggest there is a significant two-way interaction between MC and education [$F(1, 311) = 1.44, p = 0.23$], or education and income [$F(1, 311) = 1.51, p = 0.22$]. The final model was run with the three main effects and the

Income/MC interaction. The overall F-test is statistically significant [F(4, 313) = p = 0.037]. The results are shown in Table 12.

Table 12

ANVOCA Results for RQ1: Sharing Information

Parameter	Coefficient	Standard Error	*t*-value	*p*-value
Intercept	5.15	0.50	10.29	<.0001
MC	-1.26	0.53	-2.38	0.02
Edu	0.03	0.04	0.67	0.50
Income	-0.28	0.09	-3.05	0.0025
Income*MC	0.26	0.10	2.67	0.0079

R-squared = 0.032

Because of the significant interaction between income and MC, the main effects were not interpreted alone. The analysis shows strong evidence that there is a significant two-way interaction between income and MC for this construct [$t(1) – 2.67$, $p = 0.0079$]. The p value dropped from the previous run because the interaction between education/MC and education/income were dropped from the model. The coefficient of 0.26 means that for each unit increase in income, on average, the parents' responses to the Sharing Information construct increased by 0.26 for non-MC families relative to MC families, when all other factors are held constant. To summarize, the Sharing Information construct decreases for MC families relative to non-MC families as income increases. While the main effects for MC and education are statistically significant as shown in Table 3, they cannot be interpreted individually because there is a two-way interaction between these variables.

Figure 5 shows the relationship between MC and income. The plot indicates that at lower incomes MC families tend to have higher values for the Sharing Information

construct than non-MC families, while at higher incomes, MC families tend to have lower values for Sharing Information. These two lines would have been parallel if the effect of income was constant for MC and non-MC families. The intercept line is not interpreted because it only orients the lines above the vertical axis. The relationship between education and Sharing Information was not significant [$t(1) - 0.67, p = 0.50$]**.** The R-squared for Sharing Information is 0.032, indicating that 3.2% of the variance in Sharing Information is explained by the model.

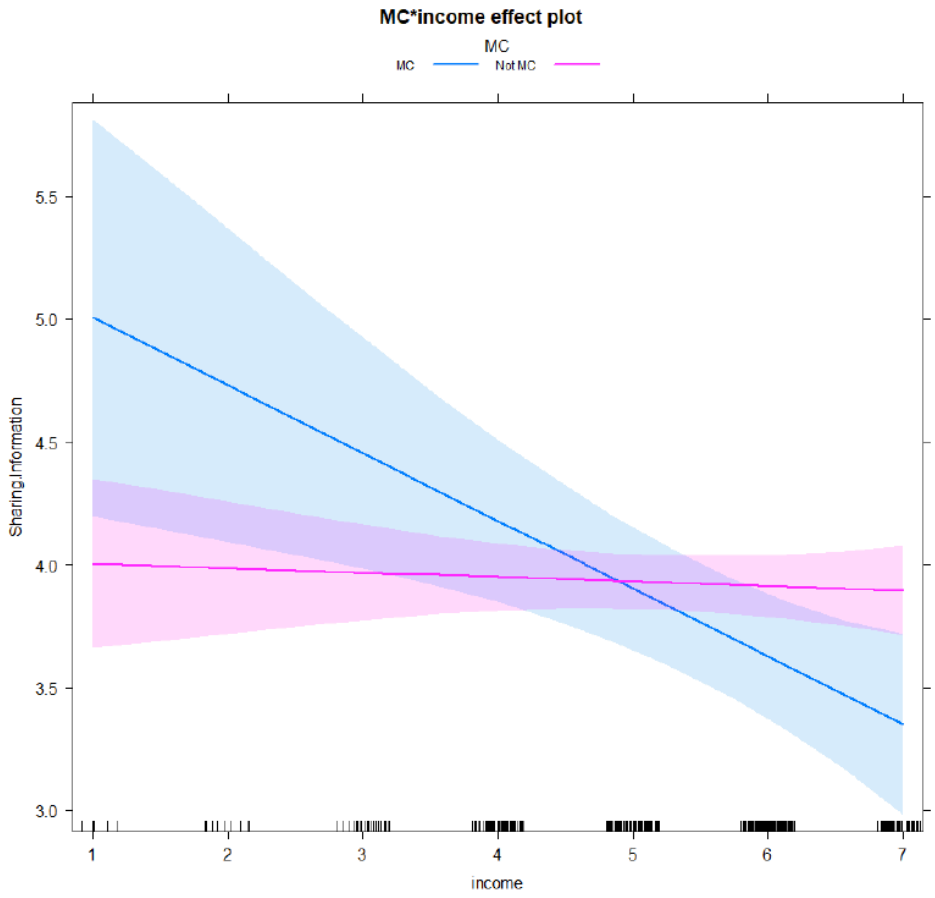

Figure 5. Sharing Information - MC*Income Effect Plot. The bands around each line indicate a 95% confidence interval for the true line. The band sizes change over the range of income because the confidence interval is impacted by the size of the sample, the larger the sample size, the smaller the confidence interval.

RQ1 - Construct 2: Communication.

There is not sufficient evidence to suggest that there is a three-way interaction for the Communication construct in the parent engagement survey [$F(1, 303) = 1.81$ $p = 0.18$]. Therefore, this term was removed and the model with all two-way interactions was run. There is not sufficient evidence to suggest there is a significant two-way interaction between MC and income [$F(1, 304) = 2.87$, $p = 0.09$], MC and Education [$F(1, 304) =$

0.18, $p = 0.67$], or Education and Income [$F(1, 304) = 2.02$, $p = 0.16$]. Based on these results the main effects were assessed directly and all two-way interactions were removed. The overall F-test is not statistically significant [$F(3, 307) = 1.36$, $p = 0.25$]. The results are displayed in Table 13.

Table 13

ANCOVA Results for RQ1: Communication

Parameter	Coefficient	Standard Error	*t*-value	*p*-value
Intercept	3.94	0.23	17.41	<.0001
MC	-0.02	0.12	-0.15	0.880
Edu	0.08	0.04	2.01	0.045
Income	-0.03	0.04	-0.69	0.490

R-squared - = 0.013

There is not sufficient evidence to suggest that there is a significant difference between MC families and Non-MC families for the Communication construct of parent engagement [$t(1) = 0.15$, $p = 0.88$]. Nor is there evidence that there is a significant linear relationship between income and Communication, with all else held constant [$t(1) = -0.69$, $p = 0.49$]. The analysis does reveal that there is a statistically significant relationship between education and the Communication construct [$t(1) = 2.01$, $p = 0.045$]. Communication increases by 0.08 for every one unit increase in education (level of education of the parent). The R-squared for this model is 0.013, indicating that 1.3% of the variance in Communication is explained by the model. Figure 6 shows the impact of education on Communication, regardless of MC status.

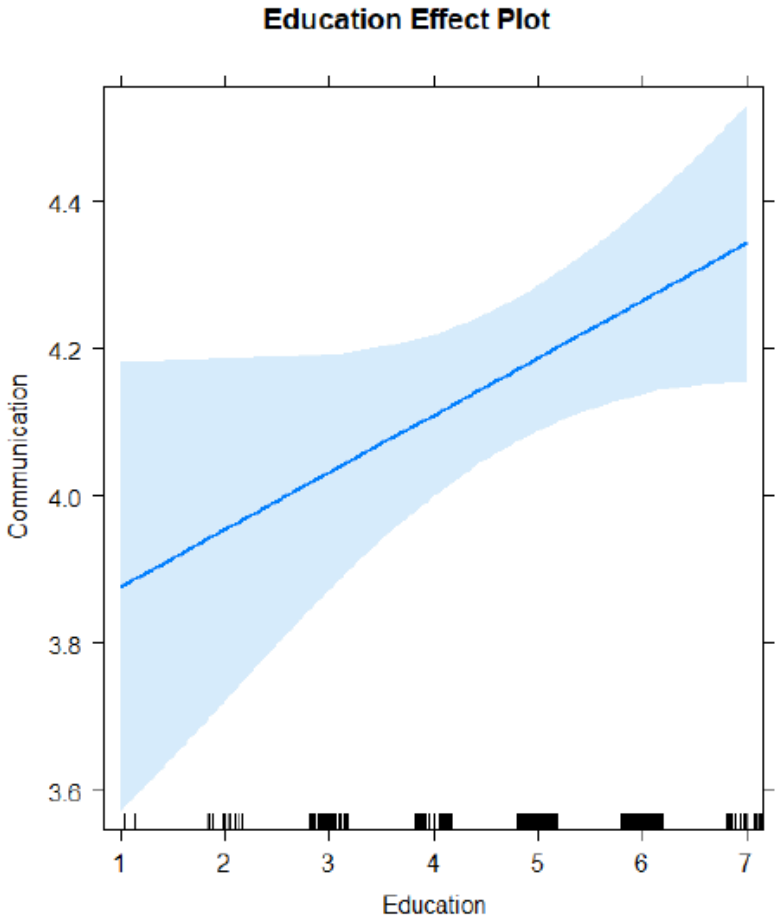

Figure 6. Communication - Education Effect Plot. The bands around the line indicate a 95% confidence interval for the true line. The band sizes change over the range of education because the confidence interval is impacted by the size of the sample, the larger the sample size, the smaller the confidence interval.

RQ1 - Construct 3: Educational Quality.

There is not sufficient evidence to suggest that there is a three-way interaction (MC/Education/Income) for the Educational Quality construct in the parent engagement

survey [F(1, 231) = 3.46, p = 0.06]. Therefore, this term was removed and the model with all two-way interactions was run. There is strong evident to suggest there is a significant two-way interaction between MC and income [F(1, 232) = 7.72, p = 0.0059]. There is not sufficient evidence to suggest there is a significant two-way interaction between MC and education [F(1, 232) = 0.3, p = 0.58], or education and income [F(1, 232) = 0.77, p = 0.38]. The final model was run with the three main effects and the income/MC interaction. The overall F-test is statistically significant [F(4, 234) = 2.49, p = 0.044]. The results are shown in Table 14.

Table 14

ANCOVA Results for RQ1: Educational Quality

Parameter	Coefficient	Standard Error	*t*-value	*p*-value
Intercept	5.36	0.65	8.2	<.0001
MC	-1.57	0.68	-2.31	0.022
Edu	0.00	0.05	0.07	0.940
Income	-0.32	0.12	-2.74	0.0066
Income*MC	0.33	0.12	2.68	0.0079

R-squared = 0.041

Due to a p value of 0.0079, there is strong evidence to suggest there is a significant two-way interaction between income and MC for the Educational Quality construct [t(1) = 2.68, p = 0.0079]. The coefficient of 0.33 means that for each unit increase in income, the parents' perception of Educational Quality as measured by the parent engagement survey increases by 0.33 for non-MC families relative to MC families, with all other variables held constant. The relationship is depicted in Figure 7. There was

not sufficient evidence to suggest that there is a significant relationship between education (parents' level of education) and the parents' perception of Educational Quality [$t(1) = 0.07, p = 0.94$]. The R-squared value for this model is 0.041, indicating that 4.1% of the variance in Educational Quality is explained by the model.

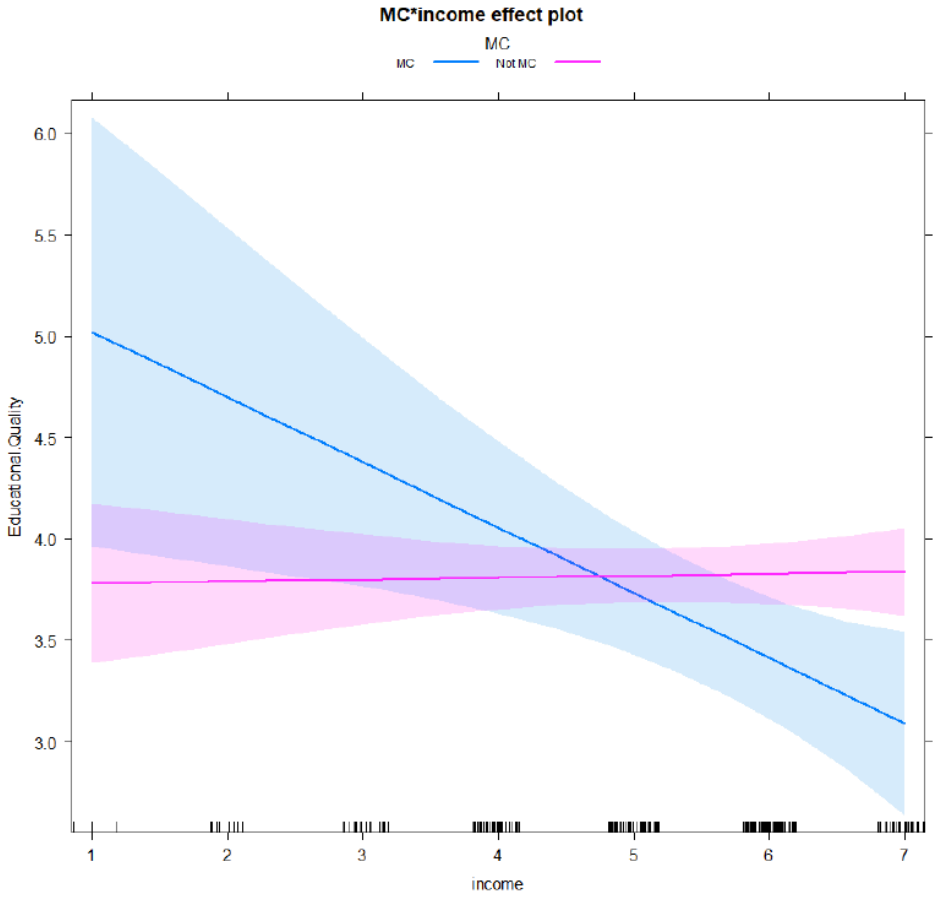

Figure 7. Educational Quality - MC*Income Effect Plot. The bands around each line indicate a 95% confidence interval for the true line. The band sizes change over the range of income because the confidence interval is impacted by the size of the sample, the larger the sample size, the smaller the confidence interval.

RQ1 - Construct 4: Leadership and Participation.

There is not sufficient evidence to suggest that there is a three-way interaction (MC/Education/Income) for the Leadership and Participation construct in the parent engagement survey [$F(1, 131) = 0.41$ $p = 0.52$]. Therefore, this term was removed and the model with all two-way interactions was run. There is not sufficient evidence to suggest there is a significant two-way interaction between MC and income [$F(1, 132) = 2.63$, $p = 0.11$], MC and Education [$F(1, 132) = 2.19$, $p = 0.14$], or education and income [$F(1, 132) = 1.56$, $p = 0.21$]. Based on these results, the main effects were assessed directly and all two-way interactions were removed. The results indicated that there is not sufficient evidence to suggest there is a significant difference between MC and Non-MC families [$F(1, 135) – 1.64$, $p = 0.20$]. In addition, there is no evidence to suggest there is a significant linear relationship between the parents' perception of the Leadership and Participation construct and education [$F(1, 135) – 1.64$, $p = 0.20$] or Income [$F(1, 135) = 2.17$, $p = 0.14$]. The overall F-test is not statistically significant [$F(3, 135) = 1.99$, $p = 0.12$. The survey results for the Leadership and Participation construct had the least number of complete responses of all constructs (139 of 357). The R-squared for this model is 0.042, indicating that 4.2% of the variance in Leadership and Participation is explained by this model.

RQ1 - Construct 5: Connection to Resources.

There is not sufficient evidence to suggest that there is a three-way interaction (MC/Education/Income) for the Connection to Resources construct in the parent engagement survey [$F(1, 291) = 1.81$ $p = 18$]. Therefore, this term was removed and the

model with all two-way interactions was run. There is strong evidence to suggest there is a significant two-way interaction between MC and income [$F(1, 292) = 7.52$, $p = 0.0065$]. There is not sufficient evidence to suggest there is a significant two-way interaction between MC and education [$F(1, 292) < 0.005$, $p = 0.99$], or education and income [$F(1, 292) = 0.13$, $p = 0.72$]. The final model was run with the three main effects and the Income/MC interaction. The overall F-test is statistically significant [$F(4, 294) = 2.93$, $p = 0.021$]. The results are shown in Table 15.

Table 15

ANCOVA Results for RQ1: Connection to Resources

Parameter	Coefficient	Standard Error	*t*-value	*p*-value
Intercept	5.17	0.63	8.16	<.0001
MC	-1.73	0.67	-2.58	0.010
Edu	0.00	0.05	-0.01	0.990
Income	-0.32	0.11	-2.85	0.0047
Income*MC	0.37	0.12	3.04	0.0026

R-squared = 0.038

The analysis shows strong evidence that there is a significant two-way interaction between income and MC for this construct [$t(1) = 3.04$, $p = 0.0026$]. The coefficient of 0.37 means that for each unit increase in income, on average, the parent's perception of the Connection to Resources construct increases by 0.37 for non-MC families relative to MC families, when all other factors are held constant. To summarize, the construct of Connection to Resources decreases for MC families relative to non-MC families as income increases. While the main effects for MC and education are statistically

significant as shown in Table 13, they can not be interpreted individually because there is a two-way interaction between the variables.

Figure 8 shows the relationship between MC and income. The plot indicates that at lower incomes MC families tend to have higher values for Connection to Resources than non-MC families, while at higher incomes, MC families tend to have lower values for Connection to Resources. These lines would have been parallel if the effect of income was constant for MC and non-MC families. The relationship between the parents' level of education and Connection to Resources was not significant [$t(1) = -0.01$, $p = 0.99$]. The R-squared for this model is 0.038, indicating that 3.8% of the variance in Connection to Resources is explained by this model.

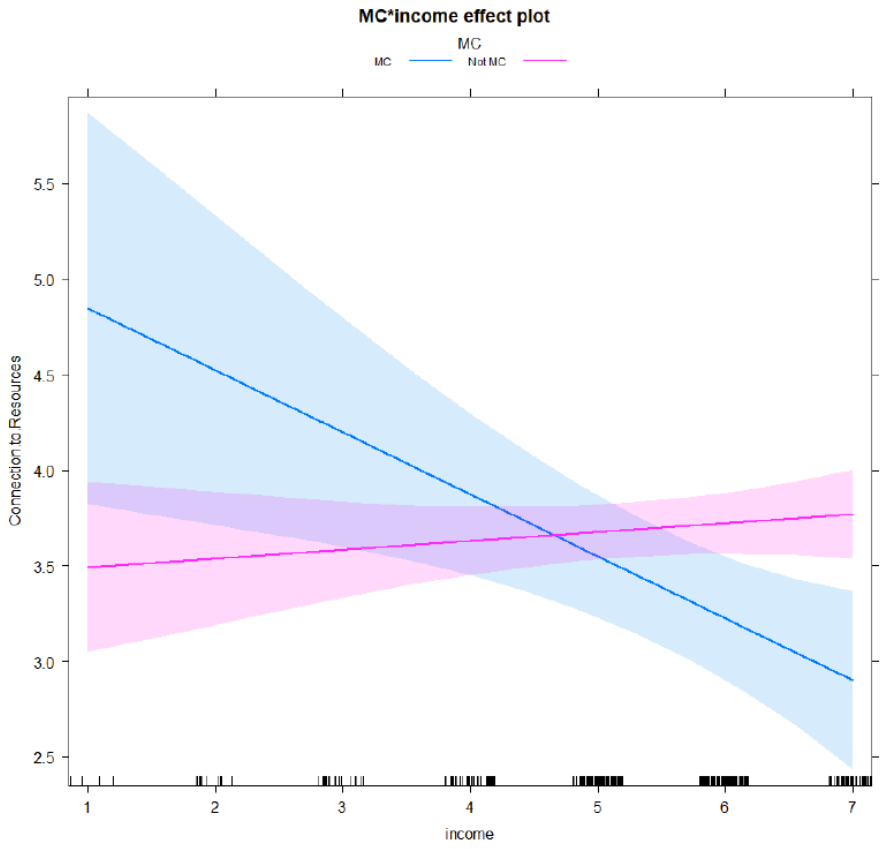

Figure 8. Connection to Resources - MC*Income Effect Plot. The bands around each line indicate a 95% confidence interval for the true line. The band sizes change over the range of income because the confidence interval is impacted by the size of the sample, the larger the sample size, the smaller the confidence interval.

RQ 1- Construct 6: How You See Your School (School Climate).

There is not sufficient evidence to suggest that there is a three-way interaction (MC/Education/Income) for the School Climate construct in the parent engagement survey [$F(1, 294) = 2.09$ $p = 0.15$]. Therefore, this term was removed and the model with all two-way interactions was run. There is strong evident to suggest there is a significant two-way interaction between MC and income [$F(1, 295) = 5.95$, $p = 0.0153$]. There is also strong evidence to suggest there is a significant two-way interaction between

education and income [F(1, 295) = 7.83, p = 0.0055]. There is not sufficient evidence to suggest there is a significant two-way interaction between MC and education [F(1, 295) = 0.05, p = 0.83], The final model was run with the three main effects and the Income*MC interaction plus the Education*Income interaction. The overall F-test is statistically significant [F(5, 296) = 3.50, p = 0.0044]. The results are shown in Table 16.

Table 16

ANCOVA Results for RQ1: School Climate

Parameter	Coefficient	Standard Error	t-value	p-value
Intercept	6.12	0.66	9.22	<.0001
MC	-1.22	0.49	-2.5	0.0129
Edu	-0.26	0.10	-2.49	0.0132
Income	-0.42	0.13	-3.29	0.0011
Income*MC	0.25	0.09	2.77	0.0059
Edu*Income	0.05	0.02	2.81	0.0053

R-squared = 0.056

The analysis shows strong evidence that there is a significant two-way interaction between income and MC for School Climate [t(1) = 2.77, p = 0.0059]. The coefficient of 0.25 means that for each unit increase in income, on average, the parents' perception of the School Climate construct increases by 0.25 for non-MC families relative to MC families, when all other factors are held constant. This relationship is depicted in Figure 9.

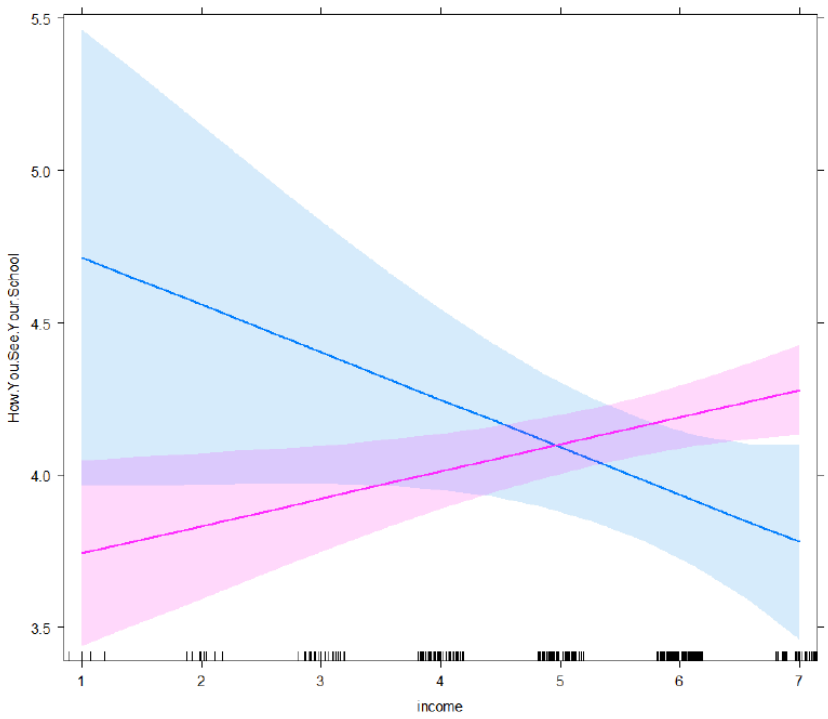

Figure 9. MC*Income Effect Plot. The bands around each line indicate a 95% confidence interval for the true line. The band sizes change over the range of income because the confidence interval is impacted by the size of the sample, the larger the sample size, the smaller the confidence interval.

There is also strong evidence to suggest that there is a significant two-way interaction between education and income for School Climate [$t(1) = 2.82, p = 0.0053$. With an estimated coefficient of 0.05 one can assume that as the parents' level of education and income both increase, their perceptions of the School Climate will increase by 0.05. Due to the fact that both education and income are continuous variables, it is not possible to plot separate lines with the MC interactions. In order to provide a visual, income was separated into five equally spaced categories. Figure 10 shows this relationship. The visual shows that as the income variable becomes larger, the slope of

the education line moves upward. However, for respondents in the lower income bracket, the perception of School Climate decreases as income increases. The R-squared for this model is 0.056, indicating that 5.6% of the variance in School Climate is explained by the model.

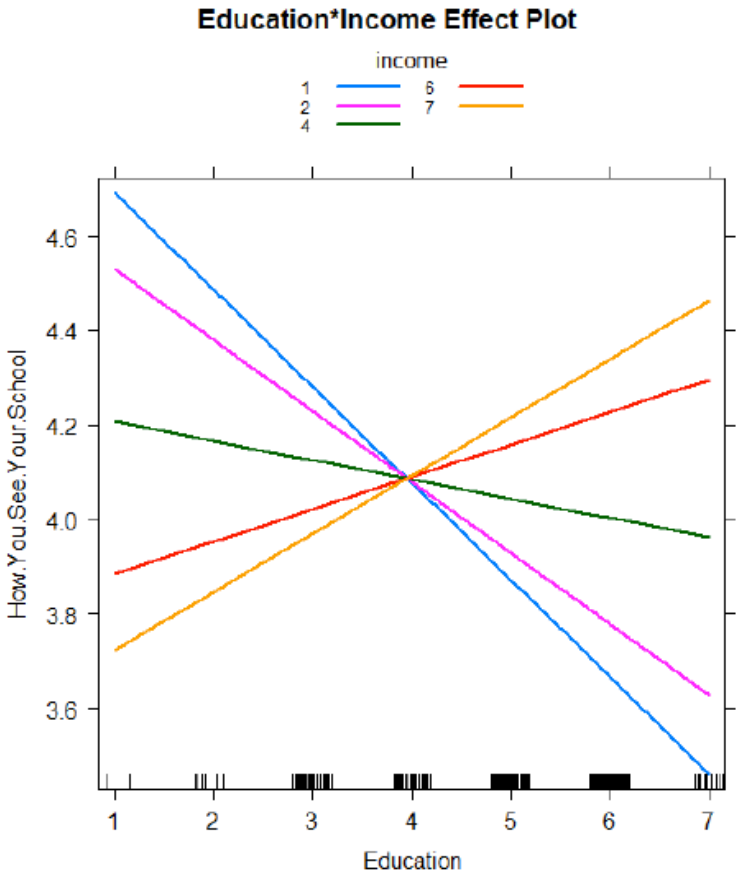

Figure 10. Connection to Resources - EDU*Income Effect Plot

RQ1- Overall Parent Engagement.

This part of the analysis evaluates the data for respondents that answered every question in the parent engagement survey. Of the 357 responses, only 97 provided

complete answers for every construct. This is the smallest sample size of all of the analyses for RQ1. There is not sufficient evidence to suggest that there is a three-way interaction (MC/Education/Income) for the Overall Parent Engagement score [$F(1, 89) = 2.91$ $p = 0.09$]. Therefore, this term was removed and the model with all two-way interactions was run. There is not sufficient evidence to suggest there is a significant two-way interaction between MC and income [$F(1, 90) = 0.63$, $p = 0.43$], MC and education [$F(1, 90) = 2.38$, $p = 0.13$], or education and income [$F(1, 90) = 0.06$, $p = 0.80$]. Based on these results the main effects were assessed directly and all two-way interactions were removed. The overall F-test is not significantly significant [$F(3, 93) = 1.89$, $p = 0.14$). The results are shown in Table 17.

Table 17

ANCOVA Results for RQ1: Overall Parent Engagement

Parameter	Coefficient	Standard Error	*t*-value	*p*-value
Intercept	3.77	0.36	10.38	<.0001
MC	0.19	0.19	1.02	0.31
Edu	0.11	0.05	2.01	0.047
Income	-0.06	0.05	-1.10	0.27

R-squared = 0.057

There is not sufficient evidence to suggest that there is a significant difference between MC families and Non-MC families for the Overall Parent Engagement score [$t(1) = 1.02$, $p = 0.31$]. Nor is there evidence that there is a significant linear relationship between Income and Overall Parent Engagement, with all else held constant [$t(1) = -1.1$, $p = 0.27$]. The analysis does reveal that there is a statistically significant relationship between the control variable, education, and the Overall score [$t(1) = 2.01$, $p = 0.0469$]. The estimated slope is 0.11 indicating that for every one unit increase in the parents' level

of Education, on average the Overall Parent Engagement score will increase by 0.1. The R-squared for this model is 0.057, indicating that 5.7% of the variance in the Overall Parent Engagement score is explained by this model. A plot showing the line of best fit for Education is presented in Figure 11.

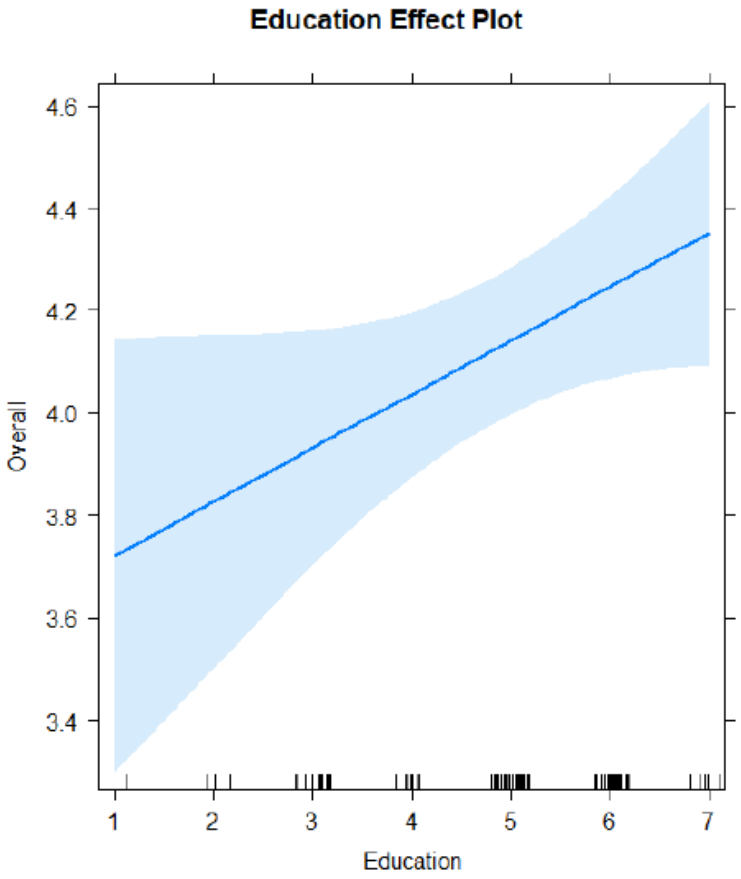

Figure 11. Overall Parent Engagement - Education Effect Plot. The bands around each line indicate a 95% confidence interval for the true line. The band sizes change over the range of education because the confidence interval is impacted by the size of the sample, the larger the sample size, the smaller the confidence interval.

Research Question 2.

Research question 2 (RQ2 – Does a lower proportion of MC parents in a public elementary school relate to a significantly lower level of MC parent engagement when compared to a public elementary school with a higher proportion of military families, while controlling for income and level of education?

$H_0$1 - There is not a statistically significant difference between the parent engagement levels of MC parents in public elementary schools based on the proportion of MC parents in a school while controlling for income and level of education.

RQ2 was analyzed for each of the six constructs as well as for the overall score for parent engagement (the average of all constructs – Sharing Information, Communication, Educational Quality, Leadership and Participation, Connection to Resources, School Climate). RQ2 was answered using a series of ANCOVAs (Analysis of Covariance). All six constructs were run as well as a seventh one for the Overall Parent Engagement score. The response variable was calculated as the average score for each of the constructs as well as the overall average score across all six constructs. In each case, the respondent's data were only included when the respondent provided an answer for every question for a given construct.

The percentage of MC families (PMC) that attend each school was included as an independent variable. The two control variables, income (measured on a Likert scale), and the parent's highest education degree earned were also included. Both control variables had seven options, and each parent's response was treated as its corresponding numeric value from 1 to 7. The model assumptions of normality and homogeneity of variance were met for each of the seven ANCOVAs that were run to answer RQ2. This

analysis was only run for the MC families since the interest for the research question relates to the behavior of MC families.

All potential interactions were analyzed for each of the seven models. A significant interaction between variables indicates that the effect of one variable in not constant across all levels of another variable or variables. For this study, a model with all three main effects, all two-way interactions, and the three-way interaction were run first. Then, if the three-way interaction (Proportion MC/EDU/Income) was not significant (the *p*-value was greater than 0.05) it was removed and a model with all three main effects and all two-way interactions (Proportion MC/Income, Proportion MC/EDU, EDU/Income) between all possible pair-wise combinations of the independent variables was run. If no significance was found in the two-way interactions, a model was run that only included the three main effects (Proportion MC, Income, Education). The final model provides the only run in which the main effects of the three variables of interest can be assessed.

RQ2 - Construct 1: Sharing Information.

The evidence does not support a three-way interaction (PMC/ Education/Income) for the Sharing Information construct in the parent engagement survey [$F(1, 47) = 23$, $p = 0.64$]. Therefore, the three-way interaction term was removed and all two-way interactions were run. There is insufficient evidence to suggest that there is a significant two-way interaction between Proportion of MC and income [$F(1, 48) = 0.09$, $p = 0.76$], Proportion of MC and education [$F(1, 48) = 0.13$, $p = 0.72$], or education and income [$F(1, 48) = 0.13$, $p = 0.72$]. The overall F-test is statistically significant [$F(3, 51) = 2.90$, $p = 0.044$). The results of the analysis are listed in Table 18.

Table 18

ANCOVA Results for RQ2: Sharing Information

Parameter	Coefficient	Standard Error	*t*-value	*p*-value
Intercept	5.49	0.65	8.43	<.0001
Proportion MC	0.00	0.01	-0.01	0.99
Edu	-0.08	0.12	-0.68	0.50
Income	-0.24	0.11	-2.29	0.027

R-squared = 0.146

There is strong evidence to suggest that there is a significant linear relationship between income and Sharing Information [$t(1) = -2.29, p = 0.027$]. The slope is -0.24 indicating that for every one unit increase in income, the parents' perception of the Sharing Information construct decreases by 0.24, with all else held constant. There is not sufficient evidence to suggest that there is a significant relationship between Proportion of MC families and Sharing Information [$t(1) = -0.01, p = 0.99$], or education and Sharing Information [$t(1) = -0.68, p = 0.50$]. The R-squared of 0.146 indicates that 14.7% of the variance in Sharing Information is explained by the model. A plot showing the linear relationship between income and Sharing Information is shown in Figure 12.

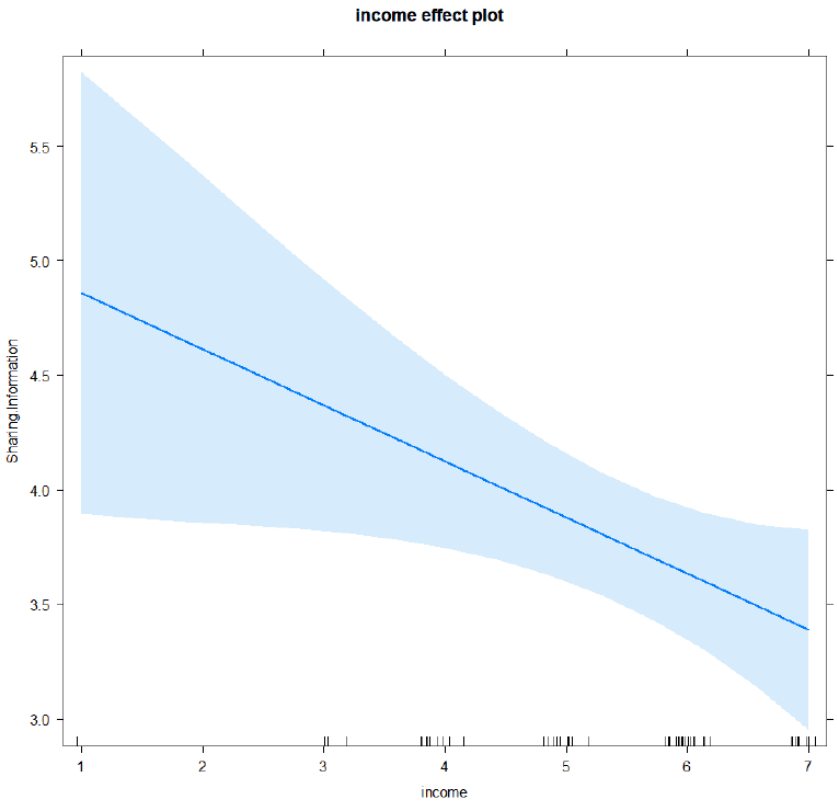

Figure 12. Sharing Information - Income Effect Plot. The bands around the line indicate a 95% confidence interval for the true line. The band sizes change over the range of education because the confidence interval is impacted by the size of the sample, the larger the sample size, the smaller the confidence interval.

RQ2 - Construct 2: Communication.

The evidence does not support a three-way interaction (PMC/Education/Income) for the Communication construct in the parent engagement survey [$F(1, 47) < 0.005$, $p = 0.98$]. Therefore, the three-way interaction term was removed and all two-way interactions were run. The is insufficient evidence to suggest that there is a significant two-way interaction between Proportion of MC and income [$F(1, 48) = 0.02$, $p = 0.89$], Proportion of MC and education [$F(1, 48) = 0.06$, $p = 0.80$], or education and income

[F(1, 48) = 1.30, p = 0.26]. There is also not sufficient evidence to indicate that there is a significant linear relationship between Proportion of MC and Communication [F(1, 51) = 0.46, p = 0.50]. There also is not evidence of a significant relationship between Communication and education [F(1, 51) = 0.52, p = 0.47] or income [F(1, 51) = 4.00, p = 0.059]. Education (p = 0.051) was right on the border of significance and may become significant with a larger sample size in a future research study. The overall F-test is not statistically significant [F(3, 51) = 1.62, p = 0.20]. The R-squared for this model is 0.087, indicated that 8.7% of the variance in Communication is explained by the model.

RQ 2 - Construct 3: Educational Quality.

The evidence does not support a three-way interaction (PMC/Education/Income) for the Educational Quality construct in the parent engagement survey [F(1, 31) = 0.04, p = 0.85]. Therefore, the three-way interaction term was removed and all two-way interactions were run. There is insufficient evidence to suggest that there is a significant two-way interaction between Proportion of MC and income [F(1, 32) = 0.69, p = 0.41], Proportion of MC and education [F(1, 32) = 0.47, p = 0.50], or education and income [F(1, 32) = 2.07, p = 0.16]. The overall F-test is not statistically significant [F(3, 35) = 2.52, p = 0.07. The results of the analysis are listed in Table 19.

Table 19

ANCOVA Results for RQ2: Educational Quality

Parameter	Coefficient	Standard Error	*t*-value	*p*-value
Intercept	5.21	0.82	6.33	<.0001
Proportion MC	0.00	0.01	-0.35	0.730
Edu	0.10	0.14	0.69	0.490
Income	-0.37	0.14	-2.61	0.013

R-squared = 0.177

There is strong evidence to suggest that there is a significant linear relationship between Income and Educational Quality [$t(1) = -2.61, p = 0.013$]. The slope is -0.37 indicating that for every one unit increase in Income, the parents' perception of Educational Quality decreases by 0.37, with all else held constant. There is not sufficient evidence to suggest that there is a significant relationship between the Proportion of MC families in a school and the Educational Quality score [$t(1) = -0.35, p = 0.73$], or the parents' level of education and their perception of the Educational Quality of the school [$t(1) = 0.69, p = 0.49$. The R-squared for this model is 0.177, indicated that 17.7% of the variance in Educational Quality is explained by the model. A plot showing the linear relationship between Income and Sharing Information is shown in Figure 13.

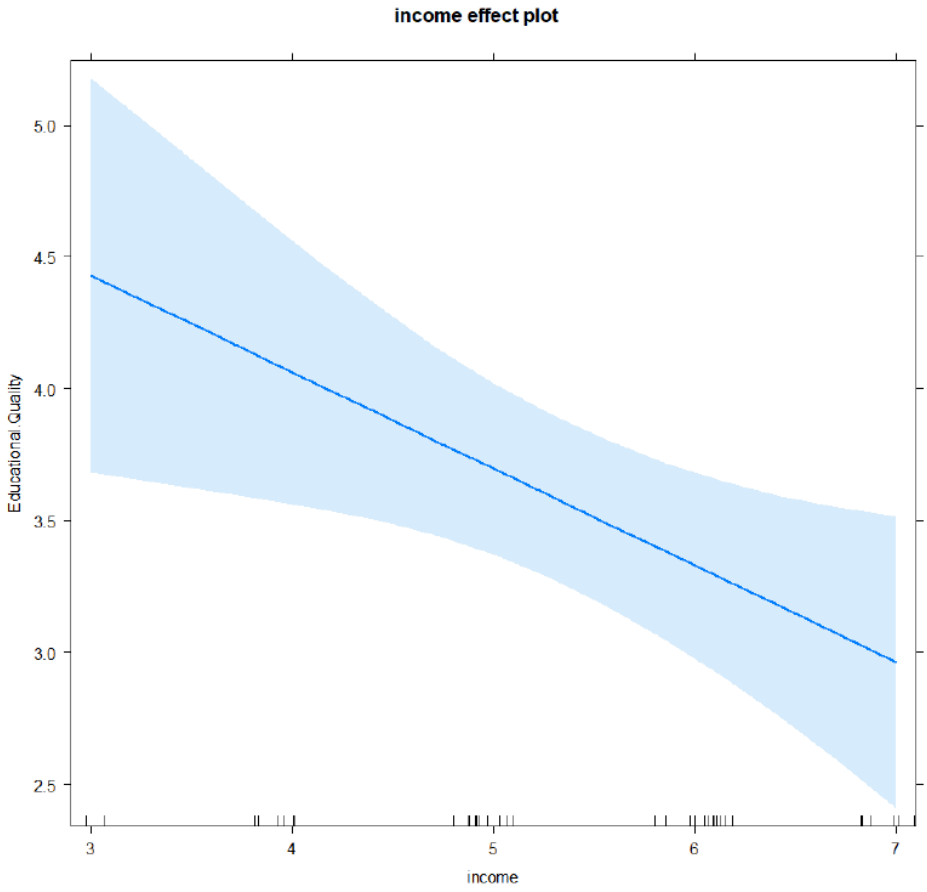

Figure 13. Educational Quality - Income Effect Plot. The band around the line indicates a 95% confidence interval for the true line. The band sizes change over the range of income because the confidence interval is impacted by the size of the sample, the larger the sample size, the smaller the confidence interval.

RQ2 - Construct 4: Leadership and Participation.

The evidence does not support a three-way interaction (PMC/Education/Income) for the Leadership and Participation construct in the parent engagement survey [$F(1, 11) = 0.56$, $p = 0.47$]. Therefore, the three-way interaction term was removed and all two-way interactions were run. There is insufficient evidence to suggest that there is a significant two-way interaction between Proportion of MC and Income [$F(1, 12) = 2.28$, $p = 0.16$],

Proportion of MC and Education [$F(1, 12) = 0.52$, $p = 0.49$], or Education and Income [$F(1, 12) = 0.38$, $p = 0.55$]. There is also not sufficient evidence to indicate that there is a significant linear relationship between Proportion of MC and Leadership and Participation [$F(1, 15) = 0.14$, $p = 0.89$]. There also is not evidence of a significant relationship between Leadership and Participation [$F(1, 15) = 1.05$, $p = 0.31$] and education or income [$F(1, 15) = -0.83$, $p = 0.42$]. The overall F-test is not statistically significant [$F(3,15) = 0.49$, $p = 0.69$]. The sample size for this analysis is very low at 19. The R-squared for this model is 0.089, indicating that 8.9% of the variance in Leadership and Participation is explained by the model.

RQ2 – Construct 5: Connection to Resources.

The evidence does not support a three-way interaction (PMC/Education/Income for the Connection to Resources construct in the parent engagement survey [$F(1, 42) = 0.02$, $p = 0.90$]. Therefore, the three-way interaction term was removed and all two-way interactions were run. There is insufficient evidence to suggest that there is a significant two-way interaction between Proportion of MC and income [$F(1, 43) = 0.19$, $p = 0.66$], Proportion of MC and Education [$F(1, 43) = 0.09$, $p = 0.77$], or education and income [$F(1, 43) = 1.14$, $p = 0.29$]. The overall F-test is statistically significant [$F(3, 46) = 2.90$, $p = 0.045$]. The results of the analyses are listed in Table 20.

Table 20

ANCOVA Results for RQ2: Connection to Resources

Parameter	Coefficient	Standard Error	*t*-value	*p*-value
Intercept	5.53	0.86	6.4	<.0001
Proportion MC	-0.02	0.01	-1.17	0.25
Edu	0.04	0.17	0.22	0.83
Income	-0.32	0.14	-2.27	0.028

R-squared = 0.159

There is strong evidence to suggest that there is a significant linear relationship between income and Connection to Resources [$t(1) = -2.27, p = 0.028$]. The slope is -0.32 indicating that for every one unit increase in Income, Connection to Resources decreases by 0.32, with all else held constant. There is not sufficient evidence to suggest that there is a significant relationship between Proportion of MC families and Connection to Resources [$t(1) = -0.01, p = 0.99$], or Education and Connection to Resources [$t(1) = -0.68, p = 0.50$. The R-squared for this model is 0.159, indicating that 15.9% of the variance in Overall Parent Engagement is explained by the model. A plot showing the linear relationship between Income and Sharing Information is shown in Figure 14.

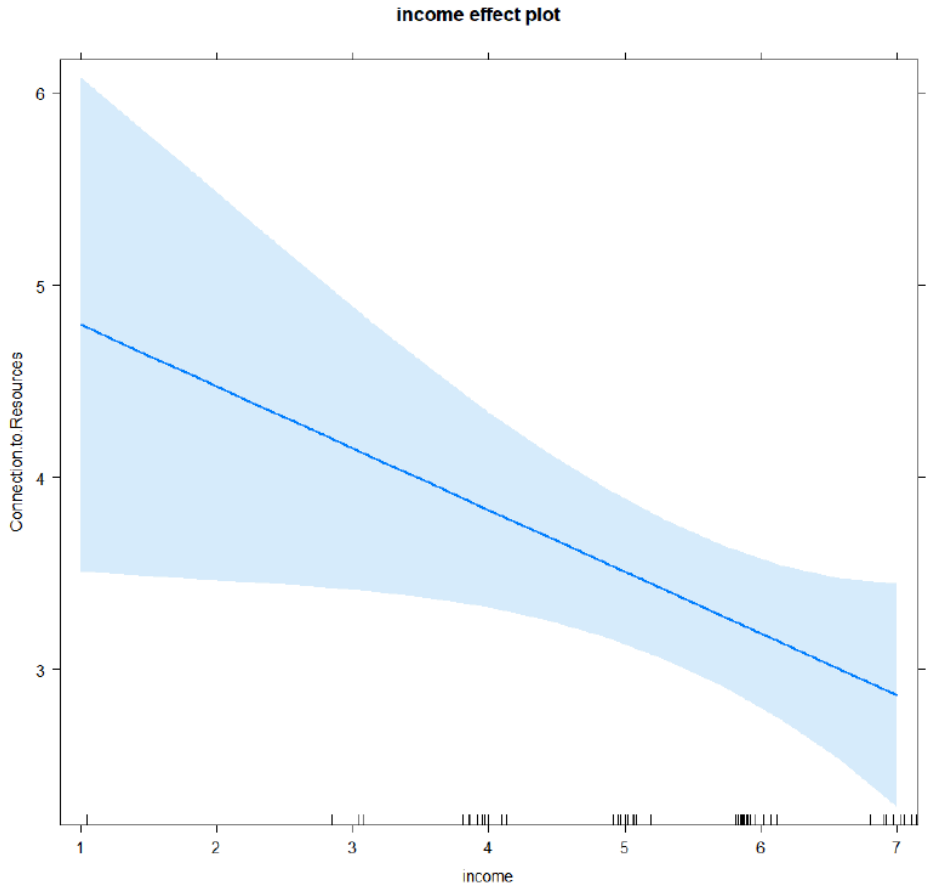

Figure 14. RQ2 - Connection to Resources - Income Effect Plot. The band around the line indicate a 95% confidence interval for the true line. The band sizes change over the range of income because the confidence interval is impacted by the size of the sample, the larger the sample size, the smaller the confidence interval.

RQ2 - Construct 6: How You See Your School (School Climate).

The evidence does not support a three-way interaction (PMC/Education/Income) for the School Climate construct in the parent engagement survey [$F(1, 43) < 0.005$, $p = 0.99$]. Therefore, the three-way interaction term was removed and all two-way interactions were run. There is insufficient evidence to suggest that there is a significant two-way interaction between Proportion of MC and Income [$F(1, 44) = 2.86$, $p = 0.10$],

Proportion of MC and Education [$F(1, 44) = 1.49$, $p = 0.23$], or Education and Income [$F(1, 44) = 0.29$, $p = 0.59$]. There is also not sufficient evidence to indicate that there is a significant linear relationship between Proportion of MC and School Climate [$F(1, 47) = 0.55$, $p = 0.46$]. There also is not evidence of a significant relationship between School Climate [$F(1, 47) = 0.07$, $p = 0.79$] and education or income [$F(1, 47) = 2.44$, $p = 0.13$]. The overall F-test is not statistically significant [$F(3, 47) = 0.99$, $p = 0.40$]. The R-squared for this model is 0.06, indicating that 6% of the variance in School Climate is explained by the model.

RQ2 – Overall Parent Engagement.

The evidence does not support a three-way interaction (PMC/ Education/Income) for the Overall Parent Engagement results $F(1, 6)$ 4.47, $p = 0.08$]. Therefore, the three-way interaction term was removed and all two-way interactions were run. There is insufficient evidence to suggest that there is a significant two-way interaction between Proportion of MC and income [$F(1, 7) = 2.10$, $p = 0.19$], Proportion of MC and education [$F(1, 7) = 3.67$, $p = 0.10$], or education and income [$F(1, 7) = 3.50$, $p = 0.10$]. There is also not sufficient evidence to indicate that there is a significant linear relationship between Proportion of MC and Overall Parent Engagement [$F(1, 10) = 1.12$, $p = 0.29$]. There also is not evidence of a significant relationship between Overall Score and education [$F(1, 10) = 1.52$, $p = 0.16$] or income [$F(1, 10) = -0.39$, $p = 0.71$]. The overall F-test was not statistically significant [$F(3, 10) = 1.07$, $p = 0.41$. The R-squared for this model is 0.243, indicating that 24.3% of the variance in Overall Parent engagement is explained by the model. The sample size for this portion of the investigation was only 14.

Qualitative Results

Research Question 3 (RQ3).

What are key similarities and differences in how elementary MC and non-MC families perceive how their public schools can increase parent involvement and support military families?

A phenomenological approach (Creswell, 2018) was used to analyze the open-ended questions that were added to the survey. The questions focused on the lived experiences of the elementary MC parent who had one or more children in one of the participating schools:

- Q52 – Please provide suggestions describing what the school could do to support your involvement in your child's learning.
- Q53 – Please provide information on what your child's school could better do to support military families.

There were 113 responses to Q52 (82 non-MC and 19 MC) and 60 responses to Q53 (41 non-MC and 14 MC). For each question an inductive approach was used to analyze the data. In the inductive approach the responses are read with the intent to ascertain what the respondent meant by their statement (Thomas, 2003). The researcher identified themes and patterns in the responses to create codes that would align with all of the responses. Key statements were highlighted as part of the process and then each response was read again and matched with one or more of the codes developed for that question. Some parent responses included statements that were coded in more than one

category. Examples of parent responses to question 52 and 53 along with the selected codes are presented in Table 21 and Table 22.

Table 21

Coding Examples for Question 52 - Supporting Military Families

Parents Response	Associated Code
"Keep parents informed" "We need more communication"	Overall Communication
"Have parents come into the classroom" "I need more meetings with teachers"	Access to Participate in Child's Education
"Need appropriate opportunities for gifted students" "My child needs reading support"	Curriculum/Academic Support
"Grades should be entered in a more timely manner" "I need better progress reports on what I should be watching for"	Information of Student Academic Status
"Do some things about diversity and acceptance" Be fair to families and students"	Culture/Climate
"I think this school does a great job!" "I am very happy!"	Nothing Needed/Great School
"I'm not sure" "This doesn't apply"	Unknown/Doesn't Apply

Table 22

Coding Examples for Questions 53 – Supporting Military Families

Parents Response	Associated Code
"Nothing is needed" "I don't think they need support"	Not needed by this population
"Bring back the YMCA program" "Have special military appreciation days"	Special events & programs
"We already do a good job at this" "There is already too much emphasis here"	Enough is already done
"Keep a list of other military families in that grade level that are open to being contacted" "Create support groups that pull people together"	Make Connections
"Create supports for parents who do not know our school system" "Don't blame the child for their problems"	Understanding & Accommodations
"Stop treating parents like criminals" "The school has been very supportive"	Culture/Climate
"Not applicable" "Unknown, we are not a military family"	Unknown/Doesn't Apply

Both Q52 and Q53 coding efforts yielded seven codes. A detailed account of the results of the coding process for Q52 is included in Table 21; for Q53, Table 22. As a reminder, the percentage of parents whose response was coded is depicted in Figure 15 for Q52 and Figure 16 for Q53. The data is differentiated between MC and Non-MC parents. More coding details are located in Appendix G.

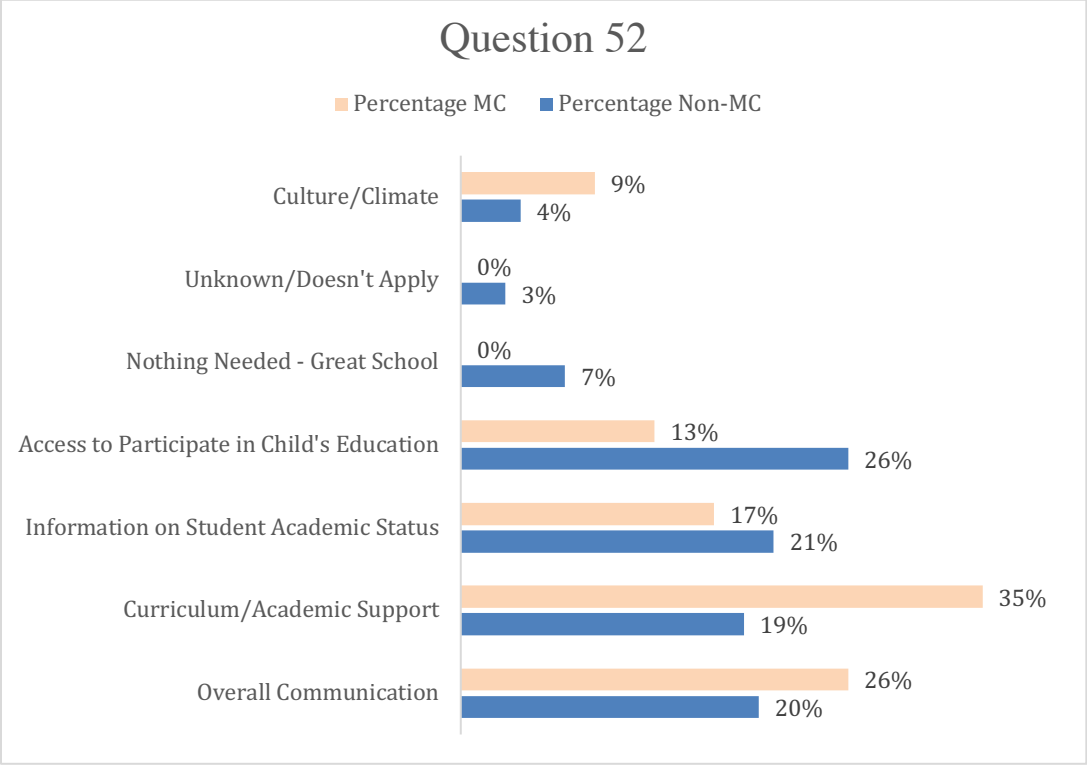

Figure 15. Survey Question 52 - What Can Schools Do to Support Parent Involvement? Parent responses could be coded in multiple categories.

Figure 15 shows the results from the qualitative analysis performed on Q52. The bar graph depicts the percentage of respondents whose statements fell into each category based on the military connection status of the parent. Although the data cannot be assessed quantitatively, there are visible differences between the perspectives of MC and non-MC parents. Larger differences were seen in the "access to participate in child's education" and "curriculum/academic support" categories, with MC parents more often providing responses that fit in the "curriculum/academic support" category and more

non-MC parents providing answers that matched the "access to participate in child's education" category. The sample size for the MC parents was only 19 which may impact the generalizability of the results.

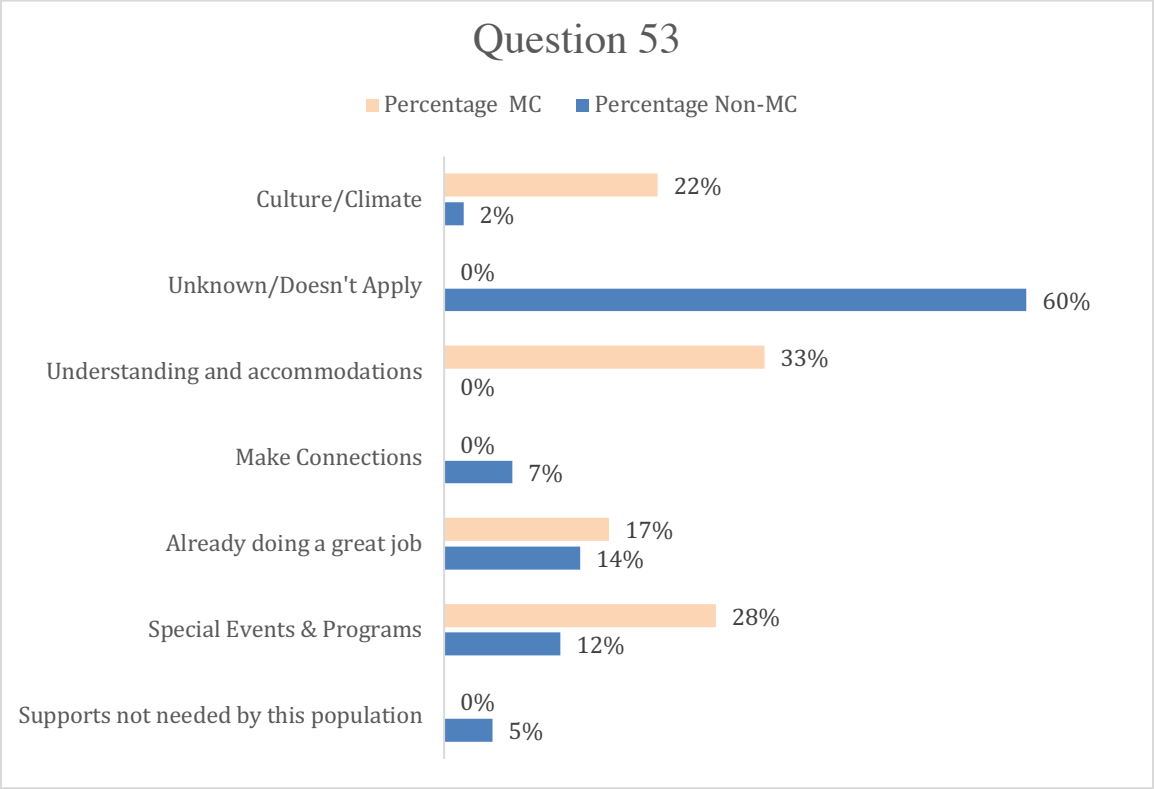

Figure 16. Survey Question 53 - What Can Schools Do to Support Military Families? Parent responses could be coded in multiple categories.

Figure 16 shows the results from the qualitative analysis performed on Q53. The bar graph depicts the percentage of respondents whose statements fell into each category based on the military connection status of the parent. Although the data cannot be assessed quantitatively, there are visible differences between the perspectives of MC and

non-MC parents. MC parents were more likely to provide answers aligned with the "culture/climate", "understanding and accommodations", and "special events" categories. Non-MC parents were more likely to provide answers that aligned with the "unknow/doesn't apply". Non-MC parents were also the only group that indicated that this population does not need any support. The proportion of answers in the "already doing a great job" category were similar between MC and non-MC parents. Similar to Q52, the sample size for the MC parents was small, with only 14 respondents, which may impact the generalizability of the results.

Summary

This chapter presented the quantitative and qualitative results from the parent engagement survey. RQ1 and RQ2 were answered using a series of ANCOVAs that tested the six constructs of parent engagement as well as the overall parent engagement level for MC and non-MC parents. When comparing the parent engagement level of MC and non-MC parents (RQ1), there was evidence of a statistically significant difference for some of the constructs but each was conditional on income. This was seen in the Sharing Information, Educational Quality, Connection to Resources, and School Climate constructs. There was no significant difference observed in the Communication or Leadership and Participation constructs, or in the overall score. The covariate, education, was shown to have a significant relationship with the Communication construct and the Overall Parent Engagement score. Regarding the impact that the proportion of MC students in a school may have on the MC parents' engagement (RQ2), there was no statistically significant difference observed. However, in this analysis the income level of

the parents' construct was shown to have a significant negative relationship with the parents' responses for Sharing Information, Educational Quality and Connection to Resources.

RQ3 was answered using a phenomenological approach and inductive methodology . There were some differences observed between the MC and non-MC parent responses for both open-ended questions. The variation in responses helps to identify the similarities and differences in how MC and non-MC parents perceive their schools.

In Chapter 5, the study findings will be discussed in detail and will be compared to the hypothesized model and the information gleaned from the literature review. The chapter will also include the implications of the results on the overall understanding of the topic. Finally, the limitations of the research will be presented, concluding with suggestions for future research in the area of parent engagement and MC families.

CHAPTER 5: DISCUSSION

Introduction

The focus of this study was to compare the levels of parent engagement between MC and non-MC parents in public elementary schools. The research objectives were investigated through a quantitative research study using a parent engagement survey and a qualitative review of responses to open-ended questions. The parents' level of income and education were included as covariates in the quantitative analysis due to the known impact that the two variables have on parent engagement. The two open-ended questions were used to compare how MC and non-MC families believe that schools should increase parent participation and how MC and non-MC families believe schools should support military families.

Military families were selected as the subject of this study due to the potential academic and mental health challenges that may impact MC students (Alfano et al., 2016). Parent engagement was selected as the dependent variable due to the literature based evidence documenting that increased parent engagement is correlated with academic achievement, positive behavior choices, and improved mental health for the student (Aidala & Straim, 2017; Denisco, 2018; Hill, et al., 2014). If there are significant differences in the parent engagement levels of the MC parents and the parent engagement levels of the non-MC parents, mitigation strategies for MC parents may be implemented to increase engagement and to support the MC students' school experience.

As the meaning and impact of findings are presented, the discoveries are compared and contrasted with the literature review findings and the hypothesized operational model. The chapter also includes the limitations of the study as well as implications for practice and recommendations for future studies that will further the research about parent engagement and military families.

Summary of Findings

RQ1: Does the parent engagement level of MC parents in public elementary schools differ significantly from non-MC parents' levels of engagement in public elementary schools while controlling for income and education?

Overall, the Analysis of Covariance (ANCOVA) did reveal a significant difference between the MC and non-MC parents' scores for Educational Quality, Sharing Information, Connection to Resources and School Climate while controlling for income and education, but it was dependent on income. Significant differences in the parent engagement levels of MC and non-MC parents were found for four of the six parent engagement constructs; significances were conditional on the income level of the parent. The covariate, education (level of parent education), also had a significant interaction with the total parent engagement score (average score of Sharing Information, Communication, Educational Quality, Leadership & Participation, Connection to Resources and School Climate) and the individual construct of Communication.

RQ2: Does a lower proportion of MC parents in a public elementary school relate to a significantly lower level of MC parent engagement when compared to a public

elementary school with a higher proportion of military families while controlling for income and education?

No significant relationship was observed for the analyses comparing the percentage of MC students in a school to the MC level of parent engagement for Sharing Information, Communication, Educational Quality, Connection to Resources, Leadership and Participation, School Climate and the Overall Parent Engagement while controlling for income and education. The analyses for RQ2 did reveal a significant relationship between the covariate, income, and Sharing Information, Educational Quality and Connection to Resources.

RQ3: What are key similarities and differences in how elementary MC and non-MC families believe that schools should increase parent participation and support military families?

The qualitative analyses for the open-ended question responses demonstrated that for this population there is a difference in how MC and non-MC parents feel that their school could improve in the areas of supporting parents' involvement with their child's learning and in supporting MC families. For example, the MC parents' responses were coded more often to concerns about the school culture and the non-MC parents' responses were more often identified in the "access to participate in the child's education" code when asked how the school could improve. When asked about the how the school could better support MC families, the MC families' responses once again more frequently fell into the culture category, while the responses from non-MC families most more frequently indicated that they didn't know or it did not apply to their situation.

Examples demonstrating the non-MC families' perception that the support of military families did not apply to them include the statements: "does not apply"; or "I am not sure because we are not a military family". The qualitative data reveal patterns that may indicate that MC parents need a more supportive school culture and invitations to be actively involved in the school community.

Interpretation of Findings

Finding 1 (RQ1): There is a significant difference between MC and non-MC parents' level of engagement in the Sharing Information, Educational Quality, Connection to Resources, and School Climate constructs of the parent engagement survey, but it is dependent on income.

The ANCOVA yielded a significant two-way relationship between income and MC status for Sharing Information (coefficient = 0.26), Educational Quality (coefficient = 0.33), Connection to Resources (coefficient = 0.37) and School Climate (coefficient = 0.25). This mean that for every unit increase of parent income, the parents' ratings for each of the listed constructs increased by the value of the coefficient for non-MC families relative to MC families. In other words, for MC parents, as income increased, the MC parent engagement level decreased for each of the four constructs.

Interpretation 1.

The hypothesized operational model shown in Figure 4 predicted a reduction in the level of parent engagement for MC parents due to frequent relocations and parental deployment.

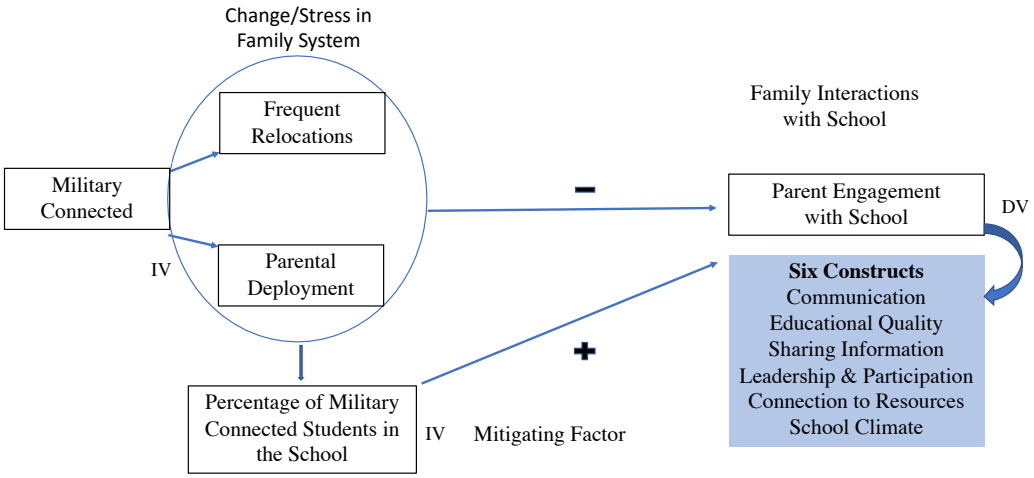

Figure 4: Parent Engagement Operational Model - conceptual model depicting the impact of military connectedness and percentage of MC parents in a school on parent engagement.

The ANCOVA analyses demonstrated that Sharing Information, Educational Quality, Connection to Resources and School Climate are negatively impacted by MC status, but the significances are dependent on the income level of the parent. A modified model, showing the four constructs and the dependence on income is presented in Figure 17.

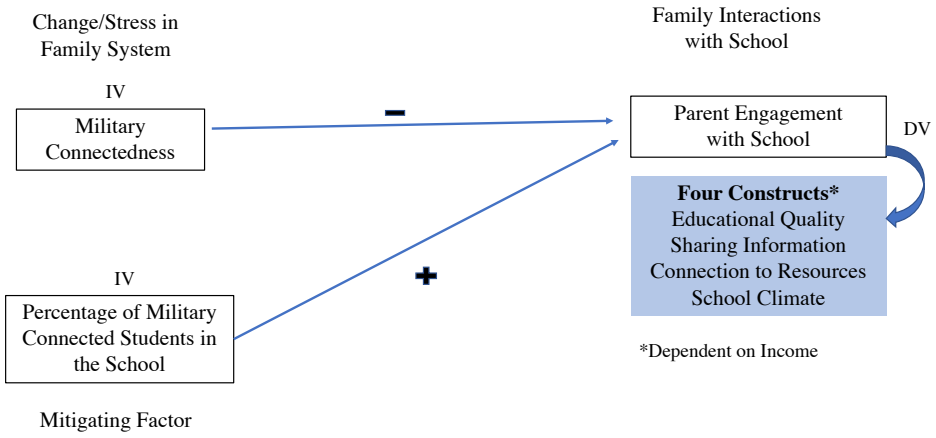

Figure 17. Revised Parent Engagement Operational Model. Revised operational model depicting the impact of military connectedness on parent engagement for Educational Quality, Sharing Information, Connection to Resources and School Climate.

The fact that parent engagement for MC parents decreased as income increased for Educational Quality, Sharing Information, Connection to Resources and School Climate runs contrary to the literature findings. Erol and Muhammed (2018) documented that as parents' education level increased, the parents' perception of their parent engagement increased. Also, Lawson's (2003) investigation revealed that parents with lower income may be less engaged with the school and may feel ignored by the school staff. The findings of the current study contradict Erol and Muhammed's (2018) and Lawson's (2003) findings, but only for the MC parents.

Finding 2 (RQ1): There is a significant relationship between the parents' (MC and non-MC) level of education and the parents' score for the Communication construct and Overall Parent Engagement.

There are significant differences for Communication and Overall Parent Engagement based on the level of education of the parents. In both comparisons Communication and Overall Parent Engagement increased as the level of education of the respondent increased. For the School Climate construct, there was strong evidence that there is a significant relationship between education level and income. In this case, one can assume that the parent's perception of the school climate will increase as both education and income increase.

Interpretation 2.

These findings take into consideration the Overall Parent Engagement scores and the Communication construct scores of MC and non-MC parents. The results support the conclusion that an increase in parent engagement for the Communication construct and the Overall Parent Engagement score increases as the level of education of the parent increases. The finding is supported by Fantuzzo et al.'s (2013) publication that there is an increase in parent engagement as years of education increases. The ANCOVA analysis confirms the previous conclusions that parents with lower education level and lower socio-economic backgrounds may be less likely to be engaged with the school. Intentional strategies to ensure that underrepresented populations are included in school leadership and participation may help alleviate this risk (Cook et al., 2017).

Finding 3 (RQ2): There is not a significant difference between the parent engagement levels of MC parents based on the proportion of MC families in the school.

For all six constructs and the Overall Parent Engagement score, no statistically significant differences were determined based on the percentage of MC families in each school.

Interpretation 3.

RQ2 was included in this study based on Alameda-Lawson & Lawson's (2018) theory that an increase in the number of MC families in a school may result in greater parent engagement of the military families. The authors reported that when schools focus on the background and experiences of the families, a culture of trust and engagement is created, leading to more parent participation.

The current analyses did not support Alameda-Lawson & Lawson's (2018) theory because no significant difference was observed when comparing Sharing Information, Communication, Educational Quality, Leadership and Participation, Connection to Resources, School Climate and Overall Parent Engagement based on the proportion of MC families in a school. For this population there was no significant difference found in Sharing Information, Communication, Educational Quality, Leadership and Participation, Connection to Resources, School Climate and Overall Parent Engagement between schools based on the percentage of MC students in the school. The revised operational model shown in Figure 18 represents the modified model showing that there is "No Impact" on the MC level of parent engagement based on the percentage of MC students in a school. This finding would lead the investigator to conclude that the percentage of

MC students in a school is not a mitigating factor to parental engagement. The low sample size of MC families and the small number of districts in this study may impact the statistical power of the results.

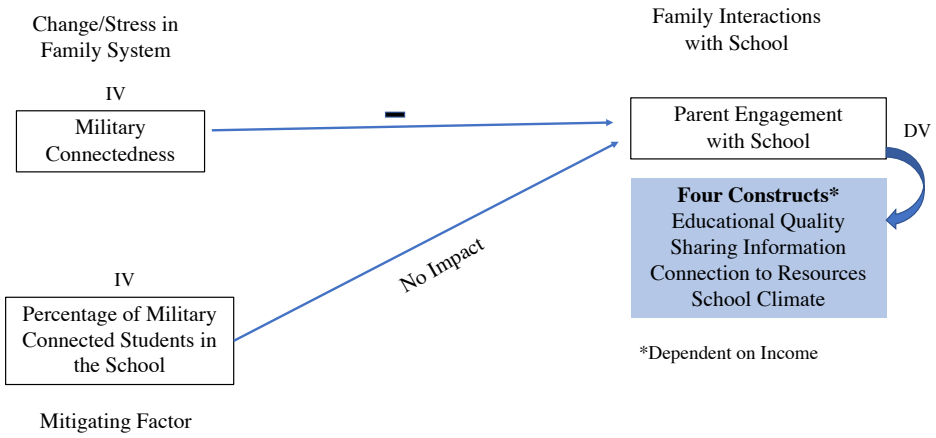

Figure 18. Final Parent Engagement Operational Model. Revised operational model depicting the impact of military connectedness and percentage of MC parents in a school on parent engagement.

Finding 4 (RQ2): There is a significant relationship between the MC parents' income and the Sharing Information, Educational Quality and Connection to Resources constructs.

For MC families, there was a significant linear relationship between income and Sharing Information (coefficient = -0.24), Educational Quality (coefficient = -0.37), and Connection to Resources (coefficient = -0.37). For every unit increase in parent income, the parents' ratings for each of the listed constructs decreased by the value of the

coefficient. To be clear, as MC families' income increases, the MC parent engagement level decreased for each of the three constructs.

Interpretation 4.

For Sharing Information, Educational Quality and Connection to Resources, the MC parents' engagement decreased as income level increased. These results match the comparison between MC and non-MC parent engagement levels. The previous finding was that parent engagement for MC parents decreased as income increased for Educational Quality, Sharing Information, Connection to Resources and School Climate. In both analyses, there was an inverse relationship between engagement and income for MC families. As mentioned previously this result contradicts the literature, but it may be related to the sample size and make-up of the sample, or may indicate that the responses of MC parents cannot be compared directly to the non-MC population.

Finding 5 (RQ3): There are differences between the perceptions of MC and non-MC parents on how to increase parent participation in their child's school and how to support military families based on a qualitative analyses of the open-ended questions.

RQ3 was answered through two open-ended questions in the parent engagement survey. The questions are listed below.

- Question 52 - Please provide suggestions describing what the school could better do to support your involvement in your child's learning.
- Questions 53 - Please provide information describing what your child's school could better do to support military families.

Through an inductive coding approach, seven categories were identified for each question. Regarding strategies to increase parent participation, MC parents responses were more often coded in the "curriculum/academic support" category and non-MC parents responded more often in the "access to participate in child's education" category. When answering the question on how best to support military families, the MC parents responded more often coded in the "culture/climate", "understanding and accommodations" and "special events" categories; the non-MC parents responses were more often coded in the "unknown/doesn't apply" category.

Interpretation 5.

Parental deployments and frequent relocations have been associated with academic challenges for MC students (Alfana et al., 2016; Park 2011; Shealy, 2003). The fact that the MC parents' open-ended responses included multiple associations with the "curricular/academic support" category supports this finding. Of the parents who responded to the survey, over 50% had experienced at least one change of schools, with 8.6% experiencing three of more school changes; it is interesting to note that over 17% had a mother or father that had deployed. The amount of deployments and frequency of relocations of the responding MC parents may account for the multiple references to a need for academic supports from the schools.

The non-MC families provided answers that aligned with the "access to participate in child's education" category at a higher frequency than the MC population. These answers included being invited to participate on committees, being invited to participate in making school-wide decisions and other invitations to be involved members of the school community. The results indicate that the MC parents are more concerned

about basic needs associated with student support in the classroom and are less likely to seek out leadership roles at the school.

The MC parents' responses to the second open-ended question mirrored the literature findings that posited the importance of creating a positive school culture to support MC families (Cole, 2014; De Pedro et al., 2011; Riggs & Riggs, 2011). According to Cole (2014), a positive school culture includes recognizing the strengths and successes of MC students. Likewise, Wadsworth (2013) made the connection between creating special recognitions for MC students and student success. The relevance of incorporating special recognitions into the school plans to address the needs of MC children aligns with the MC parents' responses that were coded as "special events".

The MC parents also provided responses that fell under the "understanding and accommodations" code. This focus aligns well with Garner's (2014) study that emphasized the need to create individual interventions for each MC student and to not assume that their needs are all the same. Responses included requests for the school staff to genuinely care about their students and their struggles, in addition to realize the stress on a family when a parent is deployed.

The non-MC families often responded to the second open-ended question with "unknown/doesn't apply" when asked how their school could best support military families. Some did respond with specific suggestions about special events, or with statements indicating that they thought the school was already doing a great job with the MC population. The responses could be interpreted to mean that the non-MC families lack information on the needs and challenges of MC families. Efforts to educate students

and parents about the unique challenges and strengths of MC families may improve the school climate for the military population.

Limitations and Future Research

This study was conducted with data collected from parents of students in grade K-5 of twelve elementary schools near a large military base in the Midwest. Due to the regional nature of the research, it is not appropriate to extrapolate the results to schools near military bases in other areas of the country unless the demographics are similar. Future studies should consider recruiting near multiple military base sites to collect data from a larger population across a diverse set of regions.

Based on the findings of this study, additional demographic data about research participants are recommended to assist in the interpretation of the impact of income on the level of parent engagement of military families. The additional demographic data should include rank, years in the service, age of children, and whether the family has dual or single income. To further the understanding of this topic, a study comparing military parent engagement to include a sampling of schools near bases as well as schools far removed from a military installation would provide an indication of the impact that a regional base has on the perspective of military parents.

In Ohio, certain schools are designated as Purple Star schools due to their commitment to students and families connected to the military (Ohio Department of Education, 2020). Future research might explore the MC parents' level of engagement making a comparison between those schools that have students in Purple Star schools and

those that do not. In addition, there would be value in conducting studies with middle and high school parents to determine if there are any differences in these populations.

Participation in this study was open to all parents of students in grades K-5 of the selected schools. Every parent had an equal opportunity to participate. The online format, however, may have excluded families who are not as comfortable with technology or do not have access to a computer. This limitation may eliminate a portion of the population who have differing views from those who responded. In light of this, those who decide to participate may not provide an accurate representation of the population average. In future studies, strategies should be implemented to increase parent participation by communicating through multiple formats. A concerted effort to advertise the survey at community and school events may increase participation. In addition, the school should offer a paper format and provide opportunities for the parent to complete the survey online at the school to gather perspectives from those that may not have a computer or internet access.

The sample size of this research was limited by the number of parents that completed the survey. Even though all parents were notified about the survey, only 5% of the eligible families responded and only 0.9% of the MC families submitted a response. Therefore, these findings may reflect the views of parents who were interested or concerned enough to spend time completing the survey.

The qualitative analysis performed for RQ3 may be impacted by researcher bias. Due to the very nature of qualitative studies, reliability and validity cannot be addressed in the same manner as a quantitative investigation (Shelton, 2004). While some of the practices that increase credibility of the study were employed (random sampling, using an

established method for coding, literature review, and peer feedback), codes were created and assigned without respondent feedback. Another potential limitation is that the research design did not include multiple qualitative data collection methods. It would be advisable in future studies to add focus groups and individual interviews to triangulate the data to support the understanding of the findings. Questions that should be asked of the participants are listed below.

- What does good parent engagement look like?
- What prevents you from being more engaged with your child's school?
- How would you describe a good school culture?
- How would you describe your school's culture?
- What would improve your school's culture?

Implications and Recommendations

The results of this study have important implications regarding how schools address the parent engagement experiences of all families. School leaders may be able to use the results to create practices and policies to help increase the parent engagement levels of MC and non-MC families. Interestingly the study findings indicating that MC parent engagement decreases as income increases conflicted with the existing literature that predicted an increase in parent engagement with increasing income. Given the conflicting results, interventions should be designed to address the needs, situations and perspectives of a diverse school population. The standard assumptions for how to increase parent engagement may not work effectively for every parent in the school. Administrators should collect information on the demographics of their population and

openly communicate with all stakeholders in order to make informed decisions about how to increase parent engagement for every family in order to positively impact student performance and future success.

The qualitative analysis of the open-ended survey questions in this study revealed differences in the perspectives of MC and non-MC parents related to what schools can do to support parent involvement in their child's learning and to support military families. Although some responses could be categorized in multiple ways, there were distinct trends showing that MC parents identified a need for curriculum and academic support more often than the non-MC parent. The non-MC parents indicated that they wanted more opportunities to be actively involved in their child's education. Based on the results, schools should utilize concerted efforts to include MC parents in decision making roles that impact their child's educational experience. In addition, staff training on the needs and experiences of military families should help to address these focus areas along with special recognition events such as celebrating military appreciation day and military child awareness month.

How to increase parent engagement in K12 schools.

The findings provide data to help school leaders institute changes in K12 schools in order to improve parent engagement for MC families. Many strategies to increase parent engagement have been reported in the literature. These include directed efforts at improving communication (Kraft, 2017), providing diverse opportunities for parents to be involved in the school (Goodall, 2015), and creating a school culture that welcomes parent participation (Goldkind & Farmer, 2013). The various strategies to increase parent engagement, along with connections to this study are described in further detail below.

Implementing communication strategies.

The findings from the quantitative analyses revealed a statistically significant difference between MC and non-MC families in the areas of Sharing Information and Connection to Resources. Both constructs can be improved through efforts to enhance communication between the home and school. In addition, 26% of the responses from the MC parents aligned with a need for improvement in the communication from the school. Both MC and non-MC parent engagement can be improved by directed efforts to address communication deficiencies, particularly as they relate to MC families. Kraft (2017) documented the importance of having an effective school communication plan to increase and support parent engagement.

Epstein's framework for school, family and community partnerships (Epstein et al., 2009) included the level of complexity that is required in an effective school communication plan. The authors explained that the communication plan should include specific details on internal and external communication strategies as well as clear guidance on when, why and how to communicate with important stakeholders. Epstein et al. (2009) also described potential problems with a communication plan and how the problems can be avoided by having accurate contact information for families and specific templates for teachers to use when communicating through text, email or phone. For example, the templates can include common language to use when contacting a parent about missing work or a low grade.

Kraft and Dougherty (2013) published that increased contact with parents resulted in improved academic success. During a summer school experience, the teachers in a study conducted by Kraft and Dougherty (2013) implemented frequent, personalized calls

to the homes of students. In the end, there was 40% reduction in the percentage of students who failed a course. The study included a control group composed of parents who did not receive additional contact from the teachers. In the control group the students' homework completion dropped by 6.5 percentage points (p = .03) during the summer school. In the treatment group, the homework completion rate dropped by less than one percentage point and the behavior incidents were lower by 25 percent (p = .07) There was also a 15 percent increase in student classroom participation in the treatment group (p =.03). Using these findings, Kraft and Dougherty (2013) published that increased contact with parents resulted in improved academic success.

Providing opportunities for parental leadership and participation.

Based on the qualitative analysis of the open-ended questions, MC parents expressed more interest in improving the school culture and obtaining academic supports for their children than the non-MC parents. Based on this knowledge, administrators should create specific strategies to involve MC parents in the school. The school leaders may not intuitively recognize that military families may require an intentional focus to increase their engagement. Engagement can be increased by providing a diverse set of opportunities for parent involvement. In a study about the place of parent engagement in the leadership and management realms in schools, Goodall (2015) reported that efforts to engage parents in K12 education should include both in school and out of school activities and they should encompass community support and participation. Mo and Singh (2008) used longitudinal data on seventh and eighth grade students' school and family experiences (n = 1,971) to confirm that parent involvement had a statistically significant impact on student's school performance ($\beta = .03, p < .01$). The authors

concluded their report by recommending that schools send to parents invitations for school events frequently, provide parents with information on students' social and emotional needs, and solicit parent feedback on curriculum choices.

Auerbach (2007) discussed the importance of principals sharing leadership opportunities with parents in relationship to parent engagement.. The author used the distributive leadership theory (Chrispeels, 2004) to consider the possibility of tearing down the traditional walls that exist between home and school; shared accountability between parents and educators was preferred. Parent engagement in Auerbach's study was connected to opportunities to lead, such as chairing school-wide committees, serving on a district leadership team or organizing volunteers. This leadership sharing strategy was further supported by Cooper and Christie (2005) in a qualitative case study of a university-sponsored parent education program designed to empower urban parents in a Southern California school district. In the study the value of sharing power with parents was touted as a means of creating effective partnerships with the school.

Creating an Inclusive School Culture.

The responses to the question about how schools can support military families revealed that MC parents desire a positive school culture, want understanding of the challenges they face as MC families and desire the creation of special events that highlight the contributions of military families. A welcoming school climate and culture were identified by Goldkind and Farmer (2013) as critical components of a strong parent engagement program. The authors compared parents' perception of school climate with their perception of school engagement opportunities. In the study, climate and culture were identified as tools that can mitigate the challenges associated with a large school

district, in which parents may feel lost in the masses. A strong correlation between school climate and perception of school engagement was found ($r=0.80$, $p<.01$), meaning that having a positive school climate will foster strong parent engagement.

Goldkind and Farmer (2013) also mentioned the importance of parents feeling that the school is safe and feeling that they are respected as an important success factors for parent engagement. One way to increase parent engagement and trust is for administrators and teachers to come alongside parents, see parents as experts in their children's lives, and value their opinion when making academic decisions (Heinrichs, 2018). All activities need to be designed to match the population characteristics of the school community, taking care not to miss the minority groups (Alameda-Lawson & Lawson, 2018).

School culture was also addressed by Dunst, Trivette, and Hanby (2007) who conducted a meta-analysis studying the parent support needed for students with special needs. The researchers recognized the importance of respecting family values, giving families control over decisions that impact their children, offering families choices, and increasing opportunities for partnerships to enhance the success of parent engagement efforts. When creating a culture that fosters parent engagement, the schools should also consider the parents' diverse cultures and interests as factors to consider in a parent engagement strategy (Alameda-Lawson & Lawson, 2018; Harley-Lock & Posey-Maddox, 2016). For example, allowing the parents the freedom to take initiative and engage in a way that is meaningful and comfortable respects the parents' background, past experiences, and culture. School personnel can prepare to meet the diverse needs of the parents by examining predisposed biases that they may possess (Laureau & Horvat,

1999). Open discussions about these biases may help to remove barriers that certain demographic groups may have experienced in the past, thereby creating a school climate in which all feel free to participate.

Numerous authors have reported that parent engagement efforts will not be successful unless there is strong administrative and district commitment to the efforts (Barr & Saltmarsh, 2014; Goodall, 2015; Kraft, 2017; Mo & Singh, 2008). A parent engagement initiative must be a district-wide goal and have sufficient funds and resources dedicated to the effort (Kraft, 2017). Kraft (2017) stated that if school leaders include parent outreach as an expectation of teachers, parent engagement in the district should increase. Kraft (2017) also recommended that districts should establish policies and practices that provide teachers and other staff members enough free time to reach out to parents (Kraft, 2017).

Summary

The purpose of this study was to explore public elementary school parent engagement levels of MC and non-MC parents. The goal was to identify gaps and trends that will inform the policies and practices of schools to increase support for military families. This chapter summarized the results of the research and provided suggestions for future practices that may mitigate deficiencies in parent engagement strategies to increase the academic success of MC students, and to alleviate the challenges that are associated with a military lifestyle.

Although the study focused on the experiences of MC families, the findings provide important information that can be used by all school leaders. Parent engagement

is a widely recognized component of school strategies designed to increase student academic and personal success. This study reinforced previous research that posited that non-MC parent engagement tends to increase as the level of income and education increases for the parents. However, the findings for the MC parents demonstrated an opposite relationship between parent engagement and income. The findings serve as a reminder of the importance of recognizing school community sub-populations who may not share the same attributes as the majority.

Ultimately, the mandate of educators is to make sure that all parents have the opportunity to actively participate as critical members of the school team so that all students' needs are identified and met. The MC families represent a subset of the school population that need to be identified and served based on their shared experiences, talents, challenges, and contributions to our society. The school's service to this group may begin by establishing common practices that will foster active parent engagement in the school.

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Appendix A: Sample Superintendent Letter

Dear Superintendent,

My name is Robin Fisher and I am the Superintendent at the Dayton Regional STEM School located in Kettering, Ohio. Currently, I am working on my doctorate degree at Wright State University and I am writing to see if you would support your district participating in a study involving military parents.

To give you some background, for the past 3 years I have been investigating education related issues of our military connected students. This involved a panel discussion at the OCTEO conference in fall of 2016, that focused on the needs of military connected children in Ohio. For the doctoral research I would like to focus on the military parents' levels of engagement in the local K12 schools. I am looking at a quantitative research design using an engagement survey that was developed at the Ohio State University. This survey has also been used by the Ohio Department of Education. My current plan is to try to include 3 Dayton area districts. The names of the districts will not be included in the study and I will provide you with data analysis results that you can use as you wish.

Requests from each district:

- Send survey to all families in your elementary schools
- Provide data on proportion of military families at each school
- Provide a description of the family engagement strategies that are currently used

The actual research will take place during the second semester of the 2018-2019 school year. I am happy to answer any questions that you may have. Please contact me at robin.fisher@wright.edu or by phone at 937-477-2621 if you have any questions.

Please let me know if you are willing to have your district participate in this research project.

Sincerely,

Robin Fisher
Superintendent/CAO
Dayton Regional STEM School

Appendix B: Sample Principal Letter

Hello Principal,

I recently reached out to your Superintendent to tell him/her about a research project I plan to undertake as a part of my doctoral program at Wright State University. At that time he/she expressed an interest in having your district participate. I am reaching out to you to give some background information and to see if you would be open to participating. My ultimate hope is that the data will provide valuable information to help you serve your school community even better, save you time from having to collect and analyze data, and do all of this with as little disruption to you or your staff's schedules as possible.

Here are the details.

- Title: A Comparative Analysis of Military and Non-Military Parent Engagement in Elementary Public Schools
- Research Methods: Surveys (Parents of K-4 students) - Follow-up interviews with you to deliver the data and discuss results
- I am using a survey that was developed by researchers at OSU for the Ohio Department of Education
- This data will help to meet the family engagement requirements of the Every Student Succeeds Act

I would like to collect survey data from the K-4 parents in your elementary schools to answer the following Research Questions.

- Do parents of military students exhibit less engagement with K12 schools than parents of students that are not military connected?
- Does the percentage of military connected children in a school impact the engagement level of military parents?

Through this process I will be collecting engagement data on all parents that respond. I think this may prove useful to your future work with families!

I am hoping that you will be open to having your school participate in this study. No names of schools, parents or staff would be identified. You would be provided with the raw and summarized data to use as you wish.

What I would need?

- A description of your current parent engagement strategies for all parents and specifically military parents
- Someone to send out the surveys to all parents of students in grades K-4 sometime after the first semester during the 2018-2019 school year - There will be an electronic link - no papers involved
- Some of your time to discuss results - late second semester
- Data
    - % of military connected children at your school
    - Number of students at the school and in each grade

I would be happy to provide more information, meet with your personally or answer any questions you may have. I can be reached at robin.fisher@wright.edu or 937-477-2621.

Sincerely,

Robin Fisher
Superintendent/Chief Administrative Officer
Dayton Regional STEM School

Appendix C: Sample Email for Parents

YOUR FEEDBACK MATTERS!
FILL OUT THIS SHORT SURVEY TO PROVIDE YOUR CHILD'S SCHOOL WITH IMPORTANT INFORMATION ON PARENT ENGAGEMENT

Date

Dear Parent/Guardian:

Participating School invites you to complete an online parent survey to share your feedback. We want to know how you feel about our efforts to make you feel welcome as a partner in your child's education. We also want to find out your overall perception of the school.

The goal of the survey is to see how well your child's school partners with parents and supports parent involvement. Your feedback will help us determine how well *participating school* is doing in this area and where there is room for improvement.

Participating School is working with a doctoral student from Wright State University to conduct this survey and to examine the data. **No personal information will be collected regarding your child and there will be no way to identify the person who completes the survey.**

If you have **more than one child in your family attending the school during the 2018-2019 school year, please fill out one survey per child.** You can complete the survey by going to:

Survey Link

Remember that your survey answers are anonymous. Please complete the survey by **date.**

Sincerely,

Participating School Leadership

Appendix D: Parent Engagement Survey

The survey is anonymous. No personally identifiable information will be collected and there will be no way to connect the results back to you or your child.

Family-School Partnerships Survey

As a parent or caregiver, your involvement in your child's learning and school is valuable and important. This survey asks for your opinions about what your child's school does to get you involved in your child's education.

Your responses will remain confidential. Results will only be reported as part of a group. Taking this survey may help your child's school improve connections with families.

The survey usually takes no more than 10 minutes to complete. If you have more than one child in the school district/building, please complete a different survey for each child.

Thank you for taking the time to complete this survey!

For each statement below, please select one answer that most closely matches your current opinion of your child's school. If you do not know or think you do not have enough information to answer, please select "Don't Know/ Not Applicable."

Sharing Information	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**	**Don't Know/ Not Applicable**
1. I receive information on what I can do at home to help my child improve or advance his/her learning.	O	O	O	O	O	O
2. I receive information about my child's development at this age.	O	O	O	O	O	O
3. My child's teacher asks to meet with me face-to-face at least once a year to talk about how my child is doing.	O	O	O	O	O	O
4. I receive information on what my child should learn and be able to do in each grade in school.	O	O	O	O	O	O

Communication	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**	**Don't Know/ Not Applicable**
5. My child's school encourages me to support my child's learning at home.	O	O	O	O	O	O
6. My child's school is very good about staying in touch with me (for example, letters, phone calls or E-mails).	O	O	O	O	O	O
7. When my child's school communicates with me, it is easy for me to read of understand.	O	O	O	O	O	O
8. If I have a question, concern or comment about my child, the teacher, principal or school counselor gets back to me right away.	O	O	O	O	O	O
9. I receive regular updates from the teacher(s) on my child's progress.	O	O	O	O	O	O

Educational Quality	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**	**Don't Know/ Not Applicable**
10. My child's teacher(s) adjust their teaching styles to meet my child's learning needs.	O	O	O	O	O	O
11. I believe my child is challenged by the school's academic curriculum.	O	O	O	O	O	O
12. My child's teacher(s) hold high expectations for my child.	O	O	O	O	O	O
13. My child receives the academic support needed to meet his/her individual needs.	O	O	O	O	O	O

14. I am asked what my goals are for my child's learning and/or what classes or programs my child should take.	O	O	O	O	O	O
15. I am asked about my child's talents and strengths.	O	O	O	O	O	O

Leadership and Participation	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**	**Don't Know/ Not Applicable**
16. I am invited to meetings so I can learn about what is going on in the school.	O	O	O	O	O	O
17. There are many different ways I can be involved with the school, either at the school building, at home or in the community.	O	O	O	O	O	O
18. When I volunteer at the school, I am given training (if needed) and resources to do my task well (if needed).	O	O	O	O	O	O
19. I can be involved in school improvement planning and decision making at my child's school.	O	O	O	O	O	O
20. I am invited to help plan family involvement activities.	O	O	O	O	O	O

Connection to Resources	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**	**Don't Know/ Not Applicable**
21. I am given information about community resources in which my family might be interested (for example, adult education, mental health, and recreation).	O	O	O	O	O	O
22. I am given information about services to support my child's learning and behavior and enhance his/her talents (for example, tutoring, mentoring, sports, camps, career exploration).	O	O	O	O	O	O

How You See Your School.	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
23. My child's school is fair	O	O	O	O	O
24. My child's school helps all students	O	O	O	O	O
25. My child's school is safe	O	O	O	O	O
26. My child's school encourages him/her to be involved in activities	O	O	O	O	O
27. My child's school cares about students	O	O	O	O	O
28. My child's school has high expectations for students	O	O	O	O	O
29. My child's school is friendly	O	O	O	O	O
30. My child's school welcomes and respects all student groups	O	O	O	O	O
31. My child's school is supportive	O	O	O	O	O
32. My child's school is improving	O	O	O	O	O
33. My child's school is a positive in his/her life	O	O	O	O	O
34. My child's school is an exciting place	O	O	O	O	O
35. My child's school is well regarded in the community	O	O	O	O	O
36. My child's school cares about families	O	O	O	O	O
37. My child's school welcomes parents/caregivers	O	O	O	O	O
38. My child's school values parents' ideas	O	O	O	O	O

39. My child's school recognizes the military connections of our family	O	O	O	O	O

We collect the following information to make sure we are hearing from and supporting all families.

40. Your Child's Grade Level.

Kindergarten	O
1st	O
2nd	O
3rd	O
4th	O

41. Your race/ethnicity.

African American	O
Asian/Pacific Islander	O
Hispanic	O
Biracial/Multiracial	O
Native American	O
White	O
Other:_____	O

42. What is the highest degree or level of school you have completed?

Less than a high school diploma	O
High school diploma or GED	O
Some college, but no degree	O
Associates Degree	O
Bachelor's Degree	O
Master's Degree	O
Doctorate or Professional Degree	O

43. What was your total household income before taxes during the past 12 months?

Less than $25,000	O
$25,000 to $34,999	O
$35,000 to $49,999	O
$50,000 to $74,999	O
$75,000 to $99,999	O
$100,000 to $149,999	O
$150,000 or more	O

44. What are the best days and times for you to attend workshops or other school events for families? (Select all that apply)

In the mornings (Monday – Friday, 8-10 am)	O
In the evenings (Monday – Friday, 6-8 pm)	O
On the weekends (Saturday morning or afternoon)	O
Other days/times: _____	O

45. What prevents you from attending events for families at school? (Select all that apply)

Childcare	O	I do not like being in the school	O
Transportation	O	Other: _____	O
Work schedule	O		
Time/Other priorities	O		
Distance of the event from my home	O		
Events are not interesting to me	O		

46. How long has your child attended this school? (All Families)

First Year	O
Second Year	O
Third Year	O
Fourth year	O
Fifth Year	O

47. Is there a direct military connection in your household (Mother, Father or Primary Caregiver is currently active duty military)?

Yes	O
No	O

48. What is the relationship of the person that has the military connection?

Mother or step-mother	O
Father or step-father	O
Both parents	O
Guardian	O

49. Please select the service designation that applies

Active Duty	O
Guard	O
Reserves	O

50. Has your family experienced a military deployment during the time your child has attended this school? (Military Families)

No	O
Yes, mother deployed	O
Yes, father deployed	O
Yes, mother and father deployed	O

51. How many times has your child changed schools since Kindergarten? (All Families)

No changes yet	O
1 change	O
2 changes	O
3 changes	O
More than 3 changes	O

Open Ended Questions:

52. Please provide suggestions describing what the school could better do to support your involvement in your child's learning

53. Please provide information describing what your child's school could better do to support military families.

Appendix E: Sample Follow-Up Parent Email

SURVEY REMINDER

YOUR FEEDBACK MATTERS!
FILL OUT THIS SHORT SURVEY TO PROVIDE SCHOOLS WITH IMPORTANT INFORMATION ON PARENT ENGAGEMENT

Date

Dear Parent/Guardian:

Recently you were sent a parent survey link to share your feedback on parent engagement efforts at *Participating School*. The survey also allows you to share specific ideas on how your child's school can improve in the area of parent engagement and school climate.

We are sending this reminder email to make sure you have the opportunity to share your thoughts. Please complete the survey at the link below by *selected date*.

Survey Link

Remember that your survey answers are anonymous and you will not be asked specific questions about your child.

Questions regarding this survey can be sent to robin.fisher@wright.edu.

Sincerely,

Participating School Leadership

Appendix F: Confirmatory Factor Analysis

Family Parent Engagement Survey

Latent Variable	Item	Estimate	Standard Error	z-score	p-value
Sharing Information	Q1	0.93	0.09	10.42	<.0005
	Q2	0.92	0.09	9.86	<.0005
	Q3	0.57	0.07	8.25	<.0005
	Q4	0.95	0.09	10.53	<.0005
Communication	Q5	0.66	0.07	10.20	<.0005
	Q6	0.84	0.08	10.87	<.0005
	Q7	0.53	0.06	8.97	<.0005
	Q8	0.66	0.07	9.05	<.0005
	Q9	1.05	0.10	10.89	<.0005
Educational Quality	Q10	1.02	0.08	12.41	<.0005
	Q11	0.55	0.08	7.07	<.0005
	Q12	0.61	0.07	8.74	<.0005
	Q13	0.80	0.08	10.31	<.0005
	Q14	0.82	0.09	8.71	<.0005
	Q15	0.80	0.09	9.11	<.0005
Leadership and Participation	Q16	0.64	0.07	9.60	<.0005
	Q17	0.72	0.07	10.60	<.0005
	Q18	0.71	0.08	9.37	<.0005
	Q19	0.73	0.08	9.61	<.0005
	Q20	0.83	0.09	9.40	<.0005
	Q21	0.79	0.09	8.61	<.0005
Connection to Resources	Q22	0.86	0.09	9.40	<.0005
	Q23	0.83	0.07	11.44	<.0005
How You See Your School	Q24	0.79	0.07	11.97	<.0005
	Q25	0.80	0.07	11.77	<.0005
	Q26	0.63	0.06	9.79	<.0005
	Q27	0.73	0.07	10.10	<.0005
	Q28	0.77	0.06	12.14	<.0005
	Q29	0.62	0.06	9.79	<.0005
	Q30	0.72	0.06	12.24	<.0005
	Q31	0.74	0.06	12.52	<.0005
	Q32	0.76	0.06	13.31	<.0005
	Q33	0.77	0.07	10.58	<.0005
	Q34	0.84	0.07	12.36	<.0005
	Q35	0.78	0.07	10.85	<.0005
	Q36	0.53	0.07	7.76	<.0005
	Q37	0.78	0.06	12.46	<.0005
	Q38	0.64	0.06	10.23	<.0005
	Q39	0.74	0.07	9.91	<.0005
	Q40	0.60	0.06	9.48	<.0005

Appendix G: Inductive Coding Data

Response Categories	Code	Question 52 Responses Non-MC	Question 52 Responses MC
1	Overall Communication	18	6
2	Curriculum/Academic Support	17	8
3	Information on Student Academic Status	19	4
4	Access to Participate in Child's Education	23	3
5	Nothing Needed - Great School	6	0
6	Unknown/Doesn't Apply	3	0
7	Culture/Climate	4	2
	Total	90	23

Response Category	Code	Question 53 Responses Non-MC	Question 53 Responses MC
1	Not needed by this population	2	0
2	Special Events & Programs	5	5
3	Already doing a great job	6	3
4	Make Connections	3	0
5	Understanding and accommodations	0	6
6	Unknown/Doesn't Apply	25	0
7	Culture/Climate	1	4
	Total	42	18